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ABSTRACT

Summaries are presented in this book of dissertations, master theses, and master reports relating directly or indirectly to vocational education which were conducted by faculty and graduate students in the universities and colleges of Kansas between 1969 and 1975. The objectives in presenting these summaries are noted: (1) to encourage new research and development without duplication of past research, (2) to assist persons in updating certain studies, and (3) to provide topic ideas to be researched for dissertations, theses, etc. Two hundred and twenty studies are presented and are listed alphabetically by the author's name under the university or college where the research was conducted. A subject index is appended. (BL)

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VOCATIONAL EDUCATION RESEARCH
SUMMARIES IN COLLEGES AND
UNIVERSITIES OF KANSAS 1969-1975

BY
RAHIM BORHANI Ph. D.

DIVISION OF VOCATIONAL EDUCATION
KANSAS DEPARTMENT OF EDUCATION
TOPEKA, KANSAS 1976

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WITH COOPERATION OF
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DIVISION OF VOCATIONAL EDUCATION
KANSAS DEPARTMENT OF EDUCATION
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FOREWORD

This report is the result of a need for more precise information on the Vocational Education research done in Kansas from 1969 through 1975.

There has been increasing interest shown in the last few years in research related to Vocational Education at the university and college levels. This reflects the emphasis placed upon dissertations, master theses, and master reports in Vocational Education.

The publication of this book has been designed to assist Kansas educational institutions in their efforts to improve the quality of their graduate research in Vocational Education. We sincerely hope that this document will prove valuable in the quest for information for planning vocational programs or as a base for conducting educational research.

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Kansas Vocational Education

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INTRODUCTION

The research listed in this book is the summaries of dissertations, master thesis, and master reports which were conducted by faculty and graduate students in the universities and colleges of Kansas between 1969 and 1975. The content of this research is directly or indirectly related to Vocational Education. In presenting these summaries, it has been the goal of the Kansas State Department of Education, Division of Vocational Education to promote new research and development at the university level without duplication of recent or past research. Furthermore, it is necessary to update certain studies which have been conducted in the past and will assist the person or persons who are interested in finding subjects or topics for their particular investigation.

For persons who wish to obtain a copy of this book and who are interested in finding topics to be researched for their dissertation, master thesis, or master report, and other studies, please write to Mr. Wilbur A. Rawson, Director of Exemplary and Special Needs, Kansas State Department of Education, Division of Vocational Education, Topeka, Kansas. The summary of the studies listed in this book could be used as a guide to indicate the research that still needs to be done in Vocational Education. For anyone interested in pursuing the research or a subject that is not listed in the book, the State Department of Education, Division of Vocational Education, will assist in obtaining any information relative to a particular subject or area of interest.

There are 220 studies presented in this book which are listed under the universities and colleges where the research has been conducted. The studies have been alphabetized by the author's name under the designated university or college. The name of the author may be found according to the above order in the Table of Contents and according to the subject matter in the index.

KANSAS STATE UNIVERSITY
Manhattan, Kansas

AGRICULTURAL CHEMICAL COMPETENCIES WHICH ARE
IMPORTANT FOR EMPLOYMENT IN AGRICULTURAL
CHEMICAL DEALERSHIPS AND IN
PRODUCTION AGRICULTURE

Algrim, Eugene Ernest
M.S.

Kansas State University
1972

The need for more agricultural services became more apparent as the number of farms in the United States had decreased and the total acres per farm had increased. The U. S. Congress has helped in the change of the vocational agriculture curriculum from one of production agriculture to one which has included agricultural related occupations. Congress passed the Vocational Education Acts of 1963 and 1968 which provided funds for these new programs. More employees were needed in the field of agricultural chemicals as indicated by studies of occupational needs and because of the rapid increase of fertilizer sales in the recent years.

The purpose of this study was to determine the level of competencies required in agricultural chemicals for employment in the agricultural chemical industry and in farming. These competencies which were rated very important and important by the chemical dealers and farmers were to be included in the vocational agricultural curriculum at Claflin High School.

Those who received the questionnaire were asked to respond by rating each competency either essential, very important, important, or little or no importance. A weighted average of the ten chemical dealers and the twelve farmers was determined by giving essential, four points; very important, three points; important, two points; and little or no importance, one point. A total sum average was obtained by adding the weighted averages of each competency for the chemical dealers and farmers and dividing by two.

Of the thirty-eight competencies in the questionnaire, the ability to "operate, calibrate, and maintain fertilizer equipment" with a sum average of 3.25 and "apply fertilizer to the soil properly and accurately" with a sum average of 3.4 were the two competencies rated the highest in the study. Other abilities which rated very important were: take an accurate soil

sample; know what is involved in "fixed cost" and what increased fertilizer (variable cost) will mean in additional yields and profit; interpret a soil test report; compute the ratio to use in a fertilizer-herbicide mixture; determine which herbicides can be mixed with fertilizers; identify weeds; and select the proper herbicides.

The understanding competencies required in agricultural chemicals which were rated very important were: characteristics of different fertilizer materials before and after they are incorporated in the soil; physical and chemical properties of the soil in relation to plant growth and potential yield; timeliness of operation in relation to crop yield; effect of weather on plant food utilization; fertilizer needs for various levels of production; and weed chemicals and their characteristics. Although there was no difference between the level of understanding between the chemical dealers and farmers, there was a higher degree of ability required in the agricultural chemical business than in farming.

There were thirty-eight competencies included in the questionnaire. Eighteen of the thirty-eight competencies were understandings of which six were considered very important and eleven were considered important. Ability competencies composed the remaining twenty competencies of which nine were rated as very important and ten were rated important. There were two competencies in the questionnaire which had a little importance rating. These competencies were "micronutrients and their effect on crops in this area" and "develop a fertilizer promotion and marketing program."

The results of this study were used to improve the crops and soils curriculum in the vocational agriculture department at the Claflin High School. It is recommended that because of the increased importance of the agribusiness industries in the U. S. and Kansas that other instructors survey their own local areas to determine what competencies are needed for other agricultural related businesses.

THE IMPORTANCE OF A PROPOSED LIST OF POLICIES FOR COOPERATIVE PROGRAMS IN AGRICULTURAL EDUCATION FOR KANSAS

Allison, Leslie Bruce
M. S.

Kansas State University
1973

The purpose of this study was to determine the importance of a list of proposed policies for cooperative programs in agriculture for Kansas. The

study was designed to identify policies for cooperative programs and allow for recommendations of adoption or non-adoption. Nineteen teachers of vocational agriculture with experience in conducting cooperative programs, and four members of the State Staff in Agricultural Education in the State Department of Education, and five teacher educators at Kansas State University served as the population for the study.

The instrument used to gather information needed for this study was a questionnaire which contained 45 proposed policy statements. The policy statements were grouped into the following areas for evaluation in this study: 1. Selection of students; 2. Student placement; 3. Selection of training stations and placement of students; 4. Related classroom instruction; 5. On-the-job instruction; 6. Administrative procedures and; 7. Advisory, promotion, and evaluation procedures.

The nineteen teachers and the nine state staff members responded to the importance for each policy on the questionnaire by choosing one of the five possible responses. The responses and their values were used to obtain weighted averages as follows: No, should not be adopted as a local policy, 0 points; Undecided as to whether policy should be adopted, 1 point; Yes, may be adopted, 2 points; Yes, should be adopted, 3 points; Yes, must be adopted, 4 points. In analyzing the ratings, guidelines were developed to assess the importance of each policy statement for conducting cooperative programs in agriculture. Policy statements with sum averages between 3.51 to 4.00 were considered to be a category "must be" adopted; 3.01 to 3.50 sum averages were considered "should be" adopted; 2.51 to 3.00 sum averages were considered to "need more study."

There were ten policy statements that were ranked in the "must be" adopted category of 3.51 to 4.00. Fifteen of the policy statements were ranked in the "should be" category with sum averages of 3.01 to 3.50. Twenty policy statements were ranked in the "need more study" category and had sum averages of 2.51 to 3.00 or had a difference of .50 or more between the weighted averages given the policy statement by the two groups in the population.

The policies which were grouped in the areas of selection of students, administrative procedures, and on-the-job instruction received higher importance ratings than those grouped in the areas of advisory, promotion, and evaluation; related classroom instruction; selection of students; and student placement.

The policy, "The teacher-coordinator should make regular visits to the student at his training station and discuss with the employer or the training supervisor the progress of each student-trainee", in the area of on-the-job instruction received the highest sum averages of 3.95. The policy, "Except for the matter of legality and the prevention of exploitation,

the school should not enter into the problem of wage standards", in the area of student placement received the lowest sum average of 2.51.

The author concluded that there was substantial agreement between the vocational agriculture teachers and the state staff members since there was less than .50 difference between the importance ratings for 39 of the 45 policy statements for the two groups. The author recommended that more research and study be implemented in the area of policy development for cooperative programs in agriculture as follows:

- A. Cooperative businesses should be surveyed to determine their opinions relating to policy matters.
- B. Administrators having cooperative programs in their school systems should be surveyed as to valuable policy statements.
- C. Teachers with experience in conducting cooperative programs in agriculture and state staff members should participate in a workshop to study and revise the policies which were identified by this study to "need more study."

A STUDY TO DETERMINE SELECTED FACTORS WHICH INFLUENCE THE FFA MEMBERSHIP OF VOCATIONAL AGRICULTURE STUDENTS

Blackledge, Daniel Gordon
M. S.

Kansas State University
1972

The purpose of this study was to determine the relationship between selected factors and the percentage of FFA membership and vocational agriculture enrollment. To accomplish this goal, the writer prepared a research instrument to be completed by 80 randomly selected vocational agriculture instructors in Kansas.

The questionnaire contained 11 items and was designed to measure both personal information of the instructor and his attitudes about the FFA. The 60 instructors who returned usable responses were divided into three groups of 20 each on the basis of the percentage of the Vo-Ag enrollment who were FFA members. Group I was composed of FFA chapters with a percentage membership of 100 or more; Group II had a percentage membership of 76 to 99; and Group III had a percentage membership of 75 or less.

By using the three equal groups, a comparison was made of the characteristics of the FFA chapters. A rather definite transition was observed among the three groups on several factors. Major findings among the groups included:

- (1) The 20 instructors in Group III, with less than 75 percent membership averaged 34 percent more students per Vo-Ag department than the other two groups.
- (2) The group with less than 75 percent membership averaged 83 percent more girls per department than those chapters with over 75 percent membership.
- (3) In the group with less than 75 percent membership there were 60 percent more town students per department than the two groups with over 75 percent membership.
- (4) Eighty-one percent of the vocational agriculture instructors in the 76 to 99 percent membership and 100 percent-and-over membership groups had the Traditional type of program (Vo-Ag I, II, III, and IV program. Those instructors who used the Semester Approach type program (specialized courses such as Animal Science, Horticulture, Ag. Mech.) composed 67 percent of the group with less than 75 percent membership and 33 percent from the two groups with over 75 percent membership.
- (5) Eighty-eight percent of the instructors in all three groups indicated they did not feel a name change was necessary at this time.
- (6) Sixty-nine percent of the instructors indicated the FFA did not need to change its image.
- (7) Sixty-five percent of the instructors indicated that girls did not affect FFA membership.
- (8) 'Encouragement of Parents' was considered the most important factor in promoting FFA membership by the instructors surveyed.
- (9) The group with 100 percent membership participated in more FFA-sponsored activities and placed more value on FFA activities than the group with less than 75 percent membership.
- (10) Instructors in the group with less than 75 percent membership tended to hold a higher degree, have more years of experience, have lower chapter rating, and spend a smaller percentage of their time on the FFA than those instructors with 100 percent membership.

Based on the results of this study, it is evident that the students the FFA is failing to attract are girls and town students. The FFA must take steps to involve these students and also actively involve all students in large departments.

It was recommended that Vo-Ag instructors attempt to make the FFA more relevant to the needs of all students by providing activities that will be of interest to girls and town students, rather than just those interested in production agriculture. The writer also recommended that the instructor take extra time to get to know the parents of prospective members and explain to both the parents and the students what the FFA has to offer.

A COMPARISON OF THE EFFECTIVENESS OF FACE-TO-FACE AND REMOTE TEACHING IN COMMUNICATING EDUCATIONAL INFORMATION TO ADULTS

Blackwood, Helen H.
M. S.

Kansas State University
1969

The purpose of this study was to determine the relative effectiveness of two teaching techniques, (face-to-face and remote teaching), in communicating educational information to adults.

The participants were representative of the Extension Home Economic Units of Reno County, Kansas. Questionnaires designed to measure immediate recall were filled out by the participants before and following the lectures. The questionnaire consisted of a face data sheet designed to secure information about the participants; the pre-test, used to establish the amount of information the participants knew of the subject before hearing the lecture; the post-test, identical to the pre-test, but used to determine the level of knowledge of participants following the lecture; and the attitude scale, used to evaluate the acceptability of the two teaching techniques by the participants.

A standard illustrated lecture was presented by a specialist to the control group. The experimental group received the same lecture by the same specialist simultaneously via telephone line.

The data were presented in the form of tables and graphs and were analyzed by means of coefficient of correlation and the t test.

The mean scores of the two groups on the pre-test were almost identical. The t test showed there was no significant difference in the level of knowledge of the subject possessed by the two groups.

The mean post-test scores of both groups was higher than the pre-test score. The t test showed there was no significant difference in the level of accumulated knowledge.

The t test showed there was no significant difference in the amount learned by the two groups.

It was concluded, therefore, that either of the two teaching techniques could be used in a similar situation and a similar amount of learning could be expected.

In order to determine whether factors other than technique of teaching which might be related to the amount of learning which took place, correlation coefficients were determined between amount of learning and age, educational level, time of day and attitude.

Age was negatively associated with amount learned, but the association was not significant at the five per cent level.

The 35-44 age group learned the most under the remote teaching situation. This might indicate that this age group was more highly motivated to learn because of the content of the lecture.

The coefficient of correlation was significant at the five per cent level between educational level and pre-test as well as educational level and post-test. The association between the amount learned and level of education was not significant at the five per cent level in either the remote or the face-to-face lecture situation.

The participants scored higher in the P. M. than in the A. M. on the pre-test and the post-test scores. The greatest amount learned was in the P. M. in the face-to-face lecture.

Although attitude as a factor in the amount learned in the experiment was not significant, a slight negative relationship did exist. The attitude of the morning participants was higher than that of the afternoon participants. But the greatest amount of learning took place in the afternoon.

New methods and techniques of teaching will be necessary in the future if the educational needs of adults are to be met.

Remote teaching is one technique that could greatly multiply the efforts of the professional Extension worker, saving time and expense as

pointed out in this study. For those who have the initiative to try the new techniques adult education offers a real challenge and unlimited opportunities.

PROJECTED ON-FARM MANPOWER NEEDS IN KANSAS

Borhani, Rahim
Ph.D.

Kansas State University
1974

This study was concerned with estimating on-farm manpower needs in Kansas for the 1974-1978 period, examining the educational trends in the population of Kansas farmers and finally determining what implications these two factors will have for vocational educational training programs.

The populations referred to in the study are (1) all farmers in Kansas, and (2) all farm workers in Kansas. The samples used include farmers who farm randomly selected sections in Kansas and the farm workers they employ.

Vocational agriculture teachers surveyed the sample in the fall of 1973. One hundred and five of the 176 vocational agriculture teachers in Kansas completed their assignments which provided data on 268 sections or 393 farmers.

The data were deemed to be representative of the farmers in Kansas on the basis of two bias checks, however, the data did not appear to be generalizable to substate areas since a comparison of regional groups indicated that farmers from different areas had different characteristics.

In examining the data on the sample which covered entry periods from 1914 through 1973, it appeared that historical events such as World War II, the depression, drought years, etc. disrupted the entry trends to such an extent that data on entries prior to 1949 could not be used to establish estimates of the future number of entries. Using the 25-year period from 1949 through 1973, however, data indicate that the number of farmer entries has stopped declining although Census data indicate that the number of farmers will continue to decline until 1993. The 20-year discrepancy might be resolved by looking at the age of farmers which indicates that the Kansas farm population has a disproportionate number of older males. The number of farm workers in the state should remain

relatively constant over the next five years and the number of entrants into the farm worker occupation should be the number of replacements needed. The current rate of entrants needed expressed in terms of percent of the farmer-farm worker population is 6.73 percent for five years. The number of new entrants into farming and farm working in the next five years is projected to be 3,851. (Note: 2,784 farmers + 1,067 farm workers = 3,851 entrants of farmers and farm workers).

The farmers' educational level has been growing at an increasing rate ever since the depression. (Note: During the depression years there was a slight decline in the level of educational achievement). At the present time, 38.9 percent of the entries have completed four years of post high school education and this percentage is growing larger. In the next five years, 1,403 entrants would be projected to have achieved four years of post high school education.

By comparing the on-farm manpower needs developed in this study and the manpower needs developed by the Kansas Manpower Utilization System for Training, it was determined that the latter underestimates needs by approximately 40 percent.

SELECTING CRITERIA AND EVALUATING YOUNG FARMER CLASSES IN KANSAS

Bothwell, David L.
M.S.

Kansas State University
1970

The basic purpose of this study was to determine the characteristics that vocational agriculture teachers, high school superintendents and Young Farmers considered essential for successful Young Farmer classes and the degree of importance of these characteristics.

A questionnaire was developed with a list of criteria believed to be essential for the successful operation of Young Farmer classes. The questionnaire was pretested by a representative group of eight teachers and administrators. The revised questionnaire contained twenty criteria. The respondents indicated whether they would be able to evaluate the criteria and indicated the importance of each. The questionnaire was sent to all 50 of the Kansas vocational agriculture teachers who conducted Young Farmer classes during the 1968-69 school year and their administrators.

Each vocational agriculture teacher designated one Young Farmer to complete the questionnaire, and 45 usable returns were received. From the 145 receiving questionnaires, 127 or 87.6 percent were returned.

A scale was arbitrarily established for all criteria. The scale was given the following value for each possible response as follows:

- +2 very significant
- +1 significant
- 0 undecided or no response
- 1 limited significance
- 2 no significance

The following 14 criteria had a positive average weighted importance as indicated by the teachers, administrators and Young Farmers. The criteria were also considered valid for evaluating Young Farmer classes by 70 percent or more of the respondents.

Members should recommend course content. (+1.48)

Instructor and Young Farmer committee should plan and schedule classes. (+1.45)

Young Farmers should attend 75 percent or more of the classes. (+1.29)

Members should be given an opportunity to evaluate classes by indicating those that had helped them the most. (+1.28)

Objectives for the Young Farmer classes should be established and carried out. (+.89)

One social event should be held each year for Young Farmers and wives. (+.89)

Young Farmer classes should be provided with adequate physical facilities by the school at no charge. (+.85)

At least two Young Farmers should attend the state tour and convention. (+.82)

Administration and school board should be informed of all Young Farmer activities. (+.78)

A Young Farmer organization should be chartered. (+.65)

Eleven or more classes should be taught by resource specialists. (+.52)

At least 15 classes should be held each year. (+.44)

A Young Farmer wives organization should be chartered. (+.27)

Advisory council should assist in setting up classes. (+.03)

The following criteria had either a negative importance rating or were not considered as valid criteria for Young Farmer classes by 70 percent or more of the respondents.

Instructor should visit each member's farm at least twice a year. (+.10)

Farm mechanics should be taught in two or more classes. (+.03)

The Young Farmers and FFA should conduct one activity together each year. (-.08)

Young Farmers should conduct one or more fund raising projects each year. (-.10)

Young Farmers should receive more than one-half their income from farming. (-.22)

A minimum of four classes should be presented by the instructor. (-.92)

The criteria used in this study did not appraise the individual performance of each person who completed a Young Farmer class but dealt with the processes involved in conducting Young Farmer classes. The respondents considered 14 of the 20 criteria as being useful and valid for the evaluation of Young Farmer classes.

A COMPARATIVE STUDY OF VOCATIONAL INTERESTS OF BOYS AND GIRLS ENROLLED IN VOCATIONAL AGRICULTURE AT ARKANSAS CITY AND CENTRAL OF BURDEN HIGH SCHOOLS IN 1973-74

Bowie, Kenneth W.
M. S.

Kansas State University
1974

The study was designed to discover the vocational interests of boys and girls enrolled in the Arkansas City and Central of Burden High Schools.

The author also hoped to discover what areas of the vocational agriculture curriculum might need to be changed as a result of the findings.

The objectives of this study are: 1) to determine the differences of vocational interests between boys and girls enrolled in Vocational Agriculture at Arkansas City and Central of Burden High Schools. 2) to discover how the vocational agriculture curriculum might be changed to better meet the interest of all students enrolled.

The population consisted of 51 boys and 23 girls from Arkansas City and 52 boys and 26 girls from Central of Burden. Data was collected through a vocational interests survey which was given to those students enrolled in vocational agriculture at Arkansas City, and Central of Burden, High Schools. The survey consisted of 65 items which each student was asked to rank according to "low", "medium", or "high" interest in that area of vocational concern.

An average interest was calculated by assigning values of one, three, and five to responses of low, medium, and high, respectively, adding this total together and dividing by the number of students completing the survey. Average scores were calculated for: 1) Arkansas City girls, 2) Arkansas City boys, 3) Central girls, 4) Central boys, 5) total girls, and 6) total boys.

It was found girls were most interested in Animal Science and FFA activities (3.3), followed by horticulture (3.2), agribusiness management (2.9), crops and soils (2.7), and agriculture mechanics (2.6).

The boys were most interested in agriculture mechanics and animal science (3.3). In third place they indicated interest in agribusiness management (2.9), followed by crops and soils (2.7), FFA activities (2.6), and horticulture (2.1).

The results of this study appear to have implications for curriculum development at the junior and senior high levels.

The following conclusions were made as a result of the study:

1. Girls are most interested in studying animal science--particularly showing and fitting--and in FFA activities--in most every area.
2. Girls also expressed a high interest in horticulture with particular emphasis on gardening and plant identification.
3. Girls were least interested in agricultural mechanics skills.
4. Boys were most interested in agricultural mechanics and animal science. They were particularly interested in welding and livestock breeding and feeding.

5. Boys showed very little interest in horticulture.

6. The results of this study indicates that in the areas where boys and girls are both interested the degree of interest seems to correlate concerning materials offered within that area.

7. In areas where interests of boys and girls differed there was however a correlation of interests concerning subject matter within each curricular area indicating that semester courses would give students greater curriculum flexibility.

Based upon related information and the responses of students surveyed, the writer recommends:

1. The implementation of an agriculture career orientation course for eighth grade students.

2. A follow-up study three years after the agriculture careers course has begun.

CRITERIA FOR THE SUPERVISED HOME ECONOMICS-RELATED WORK EXPERIENCE PROGRAM FOR COLLEGE CREDIT

Bowman, Mary Nell
Ph.D.

Kansas State University
1975

The major purpose of the study was to determine criteria for a supervised work experience for college credit as a part of the preparation of occupational home economics teachers. Criteria were identified by four groups of professionals involved with occupational home economics in twelve central states in the United States. They were: teachers of home economics occupations; teacher educators in colleges and universities which prepare home economics teachers; city supervisors of home economics programs; and state directors of home economics. It was hypothesized that there would be agreement among the four groups as to criteria for the supervised work experience, the college supervisor role, and the employer role.

Statements for the survey instrument were gleaned from a review of literature that considered research and recommendations from all vocational

service areas reporting a supervised work experience for college credit. A panel of experts reviewed the questionnaire and then statements were revised and the format improved.

Following a pilot study, coefficient alpha was calculated for each of three sections of Part I. For the supervised work experience the measure was .66; for the college supervisor role and the employer role, .26 and .27 respectively.

The questionnaire was completed by a representative sample drawn from each of the four groups in each of the twelve states. The response was 80 percent. The hypothesis of no difference was tested by a one-way analysis of variance for each of the three components of Part I. Frequencies and percentages were calculated for the specific requirements for the course, and hours of credit for hours on-the-job. Additional information regarding programs and procedures was tabulated for consideration.

It was concluded that the recommended criteria for a home economics supervised work experience would be quite similar to those which have been suggested in the other vocational service areas reporting such an experience, as preservice or inservice education for occupational teachers.

The home economists agreed that seminar sessions in addition to related learnings would make an important contribution to the work experience for the student. A work experience approved by the college supervisor, in the area in which the student plans to teach was recommended, either as preservice or inservice education. College supervisor and employer working together on supervision and teaching, evaluation, and synthesizing of work concepts promote better learning experiences for the student than either person working alone, according to this study. The college supervisor should visit the work site and the employer should participate in seminar sessions on campus.

Further research to determine teacher certification requirements for occupational home economics teachers was recommended. On a regional basis, if not multi-regional or national, certification requirements should offer enough consistency that teacher mobility is not a problem. Specific criteria for a supervised work experience could result from further research and contribute to teacher education programs.

A STUDY OF THE RELATIONSHIP BETWEEN THE JOB
SATISFACTIONS OF WOMEN AND SELECTED
DEMOGRAPHIC CHARACTERISTICS

Boyd, Betty June
Ph. D.

Kansas State University
1974

This study attempted to discover whether the variables of age, marital status, educational attainment and occupational level were related to intrinsic (factors inherent in the work) job satisfaction, extrinsic (environmental factors) job satisfaction, and the total job satisfaction of women workers at Kansas State University. Another question investigated was: is there a significant difference in reported job satisfaction and what women would consider to be important in an ideal work situation? The relative satisfaction of twenty work dimensions and the importance placed upon these by the women participants were areas also explored.

The sample was composed of full- and part-time female employees at Kansas State University, excluding student help. The 962 participants were requested to express the degree of work satisfaction they felt from the choices "not satisfied", "slightly satisfied", "satisfied", "very satisfied", or "extremely satisfied" on the twenty items comprising the questionnaire. Most items on the questionnaire were designated as either an intrinsic or extrinsic satisfaction, resulting in scales of intrinsic, extrinsic, and total satisfaction. The subjects were asked also to indicate similarly the degree of importance they would place on each of the twenty items in an ideal job situation.

An analysis of variance test was employed to test twelve hypotheses determining if there were significant differences in intrinsic, extrinsic and total job satisfaction and a woman's age, marital status, educational attainment and occupation. Statistically no significant difference was detected in marital status and intrinsic, extrinsic and total job satisfaction. Likewise the educational attainment of a respondent was unrelated to the reported job satisfaction, regardless of its intrinsic, extrinsic, or general nature. The significant differences appeared in the occupational and age classifications. Significant F statistics at the .01 level were obtained for intrinsic and total job satisfaction in both of these categories; significant differences were not established in regard to extrinsic job satisfaction for either age or occupational level.

A t-test indicated that there was a significant difference in women's reported job satisfaction and what they would view as important in an ideal job situation. The mean of the importance assigned to the dimensions surpassed the mean of expressed satisfaction.

The means obtained for reported satisfaction on each of the twenty work dimensions were rank ordered, from highest to lowest, to facilitate comparison. Means for the importance the respondents would place on each work reinforcer in an ideal job situation were similarly listed in rank order. Though the reported satisfaction means evidenced satisfaction with most of the reinforcers, a comparison with the importance which the respondents would place on the individual dimensions in an ideal job situation indicated that a discrepancy existed within the majority of work dimensions. As satisfaction with specific work dimensions is influenced by the importance with which that dimension is viewed, this finding suggested that the respondents would probably report increased satisfaction on these dimensions in a job structured more to their expectations.

A STUDY OF CURRICULAR INTERESTS AS EXPRESSED BY
FORTY-TWO BOYS ENROLLED IN THE VOCATIONAL
AGRICULTURE PROGRAM IN THE NESS CITY
HIGH SCHOOL IN 1969-70

Brenner, Edward F.
M. S.

Kansas State University
1970

The study was designed to attempt to determine the curricular interests relating to the development of vocational agriculture students in Ness City High School, to discover why more students were enrolled in the ninth grade vocational agriculture than enrolled in the twelfth grade vocational agriculture program and to discover areas of student interest in an attempt to center the vocational agriculture curriculum of Ness City High School on the basis of student interests and needs.

Data was collected by an Interview Schedule and Checklist developed by Dr. James Albracht of Kansas State University. Data was obtained from forty-two (100 per cent) of the students enrolled in vocational agriculture at Ness City High School.

It was found that students in all four classes rated vocational agriculture first in interest of the five departments studied and it was also found that they had the highest grade point average in vocational agriculture. The other subject areas varies between classes by interest and by grade point average.

Freshmen and sophomore classes indicated more interest in working out-of-doors and working with their hands than the juniors and seniors. The freshmen also indicated more interest in working with agricultural machinery and motors than the other three classes.

It was found that the juniors had the highest grade point average and the highest average IQ and to be the least interested in working with agricultural machinery and motors.

Freshmen and sophomore students also indicated more interest in working with welders and shop equipment than juniors and seniors. Freshmen were much more interested in repairing electric motors and equipment than the other three classes.

The juniors appeared to be the most interested in: working with trees and shrubs, beautifying the landscape, keeping records and accounts of livestock and crops, selecting and raising crops, managing a farm business and working in an agricultural business. The seniors indicated the most interest in: meeting and speaking with others, and selecting and showing livestock.

The results of this study appears to have implications for curriculum planning, and the instructor should stress the advantages of these expressed interests where possible.

When the fourteen curricular interest areas were administered to the forty-two Ness City High School vocational agriculture students, the study showed a weighted interest value ranging from one to five. The fourteen curricular interest areas had an average weighted interest value of two and eight tenths.

When the curricular interest areas were taken by classes the ninth grade vocational agriculture class indicated the greatest range of interests in all areas and the twelfth grade vocational agriculture students had the most definite interests. This was noted as being possibly due to the maturity of the students and career interests of the senior boys.

IMPROVEMENT OF THE READING ABILITIES OF VOCATIONAL STUDENTS

Brensing, Darrell D.
Ph.D.

Kansas State University
1974

The study represented an attempt to ascertain if it is in the best interest of the students enrolled in vocational programs and of the taxpayers responsible for vocational education in Kansas to continue to establish learning skills laboratories in the area vocational-technical schools. To answer this question, it was necessary to conduct research to determine if students who had the opportunity to participate in a learning skills laboratory for the purpose of improving their reading skills gained a significant amount in their measured reading level over those students who were similar in nature, but did not have the opportunity to participate in a similar learning experience.

Research has indicated that 20 to 80 percent of the students throughout the nation who enroll in public community and junior colleges are reading below the eleventh-grade level, depending upon the locale. The basic assumption is that area vocational-technical schools which enroll post-secondary students would have a similar ratio. Evaluation indicated that forty to sixty percent of the post-secondary students from the Manhattan Area Vocational-Technical School at Manhattan, Kansas, and the North Central Kansas Area Vocational-Technical School at Beloit, Kansas, the two schools included in this study, were reading below this eleventh-grade level.

An additional purpose of the study was to furnish guidelines for the organization of a learning skills laboratory. These guidelines include the steps in organization, planning of the physical facility, suggested equipment and supplies, selection of the instructor, in-service training available, selection of students, length of training sessions, inter-staff relationships, problem areas to consider, and the role of administration in organizing a learning skills laboratory.

The population consisted of 294 students from two schools that were similar in nature, except that one school had a learning skills laboratory while the other did not. The students were heterogeneous and varied in age, differed in gender, and tested reading ability. A total of 142 students comprised the experimental group and were from the school with the learning skills laboratory while 152 students comprised the control group and were from the school without a similar facility. All students included in the study were reading below the eleventh-grade level as established by the test instrument, the Nelson-Denny Reading Test.

The null hypotheses were subjected to statistical tests designed to either affirm or disprove their assumption. One null hypothesis stated that there were no significant differences between the gain in raw scores of students who participated in the learning skills laboratory and those who did not. The other null hypothesis stated that there was no correlation regarding gain in raw scores of those students who attended additional sessions in the learning skills laboratory. The variables of sex, age, marital status, military background and reading level were tested statistically.

In analyzing the results of the data the following conclusions were formed:

1. The mean score gain of the students who participated in the learning skills laboratory more than doubled the mean score gain of the students who did not have the opportunity to participate in a similar experience.
2. It is statistically significant that there is a positive relationship between the number of sessions attended and the amount of net gain.
3. The 26 to 35 age group had a greater net gain than any other age group tested.
4. Females scored higher than males on the pre-test variable.
5. The sex of the student had no statistically significant affect upon raw score gain.
6. The marital status of the students was not a factor in the pre-test variables or in raw score gain.
7. The military background of a student was not a factor in the pre-test variable or in raw score gain.
8. The students who were in the reading group that tested below the seventh grade reading level gained more than any other group tested.

Based upon the results of this research, the writer concluded that the establishment of learning skills laboratories should be a high priority item for vocational-technical schools throughout the nation.

A STUDY OF THE 1971 FFA SUMMER LEADERSHIP AND CITIZENSHIP CONFERENCE

Broeckelman, Robert J.
M.S.

Kansas State University
1972

The purpose of this study of the 1971 Summer National FFA Leadership and Citizenship Conferences was designed to obtain the status of conference participants. Information in the study included: how they were sponsored, reasons for attending, methods of travel, and the tenure of the Chapter Advisor. One of the objectives of the study was to determine whether the distance of travel affected the attendance of the participants. The 314 participants in attendance at the four conferences were FFA members and advisors. Two of the conferences were for chapter improvement, and the other two conferences were for individual leadership development.

A questionnaire was developed which included 14 areas pertaining to the status of conference participants and their FFA Advisors. The author was present to administer the instrument. The data from the questionnaire were tabulated through frequency distributions and the results were given in numbers and percentages for all four conferences. The major findings of the study were: The Central FFA Region had 181 or 58% of the participants in attendance at the conference, followed by the North Atlantic FFA Region with 54 or 17%. The Pacific FFA Region had 50 or 16% of the participants, and the Southern FFA Region had 29 or 9% of the total attendance. The attendance at the Leadership and Citizenship Conferences exceeded the enrollment of the Chapter Impact Conferences. Local FFA Chapters were the chief sponsor for 89% of the participants.

Expected outcomes for most participants were to develop their leadership skills, assist in the development of their local FFA Chapter activities, develop more civic responsibility, and to meet other young leaders in the FFA. Most participants attended the conferences to advance in the FFA, tour Washington, D.C., meet their Congressional leaders, and for the leadership training.

Seventy-two percent of the participants had attained the degree of Chapter Farmer, and 95% of the participants had goals to increase their present FFA degree status by attaining the State or American Farmer Degrees. Eighty-two percent of the participants were from chapters which were ranked in the National Chapter Award Program. Means of travel were by air, private auto, bus, train and camping units with the majority traveling by air.

Most participants were informed about the conference and influenced to attend by their Chapter FFA Advisor. Approximately 77% traveled to the conference alone or with their Advisor. Sixty-seven percent of the participants traveled 800 or more miles to the conferences. Traveling distance to the conference appeared to have little effect on conference attendance. The average attendance was 78.5 participants for each conference.

The author recommended that similar studies be made of participants of leadership conferences sponsored by other youth organizations. The author also recommended that additional leadership development studies be made of District and State Leadership Conferences which have been sponsored by several states.

THE DEVELOPMENT OF A DECISION MODEL FOR VOCATIONAL- TECHNICAL EDUCATION PLANNING

Brooks, Dale Edward
Ph.D.

Kansas State University
1973

This dissertation was developed from the recognition of the need for a more effective tool or device for (1) an objective decision-making method upon which to base vocational and technical education program development, and (2) a means by which existing program mixes could be evaluated. The approach identified those variables that would influence the program mix best suited to serve student needs and manpower needs within the available financial resources. Once the variables were identified, a linear program was developed that would provide the variable manipulation necessary to arrive at an optimal solution.

The literature search revealed that objective methods were not common in the decision-making process of vocational and technical education program planning. The usual approach has been for vocational and technical education managers to make assessments based upon personal experience, authority, or tradition. The literature also revealed that Dr. M. G. Mudzo, had made an initial attempt to develop a model to identify numbers of trainees needed to best serve employment needs in Oklahoma, using a linear programming technique. Dr. Mudzo's prior work provided a background for the approach used in this study. Other factors that provided a foundation for this study were the accomplishments

made by the Kansas Manpower Utilization System for Training Project in providing a data base.

Variables that affect vocational and technical education programming were quantified through the selection of representative data. Several statistical applications were considered and rejected in favor of linear programming as it is considered to be a modern theoretical tool of applied mathematics that concerns itself with the efficient use or allocation of limited resources to meet desired objectives where solutions satisfy both the conditions of the problem and the given objectives in terms of the most optimum solution. The optimum solution either maximizes or minimizes a linear combination of variables that are written as constraints to restrict the variable manipulation.

The model was tested for practical application using two tests that resulted in the indication that the procedure could be used as a tool for selecting appropriate vocational and technical education mixes. Although the results produced interesting information, it should not be considered as a final determination of curriculum due to the parameters and restrictions utilized in testing the model.

Fifty vocational and technical education programs were selected as prospective programs that best served the manpower needs of Kansas. The model was applied to data representing the student service area of the Central Kansas Area Vocational Technical School. Results indicate that the program mix now being offered should be modified to include 17 new programs, 4 programs to be expanded, 2 programs to be reduced, 9 programs to be closed and 6 programs not to be considered for development.

The model was applied to data representing the present program mix of the State of Kansas. Results indicate that the program mix should be changed by adding 5 new programs, 21 programs to be expanded, 17 programs to be reduced, 2 programs to be closed, 1 program not to be considered and 2 programs with no change.

Use of the model in program planning for vocational and technical education would add sophistication and objectivity to the decision-making process. Application of the model demonstrates that it is a procedure that will accurately determine an optimal vocational and technical program mix for a specific service area.

FINANCING FFA ACTIVITIES IN SOUTHWEST KANSAS

Burch, Alva LeRoy
M. S.

Kansas State University
1973

Purpose

The objective of this study was to determine the various types of fund-raising activities used by chapters in the Southwest Kansas FFA District. The study was also designed to find out which activities were the most successful and least successful and why.

Method

Information for the report was obtained through the use of questionnaires which were sent to each instructor in the Southwest District. Twelve of the sixteen schools responded for a 75 percent return. Two of the returned questionnaires could not be used, as new instructors were hired who did not have access to the account books of the previous year.

Findings and Interpretations

The vocational agriculture instructor in the Southwest Kansas FFA District has an average of 15.35 years of teaching experience. The average enrollment for all students in vocational agriculture was 65.7 with a mean of 46.8 in FFA and mean receipts and expenses of \$17.64 and \$14.55 per student respectively.

No definite conclusions could be drawn concerning teachers experience and chapter income. The differences in income were primarily due to factors such as enthusiasm of the students and community acceptance. The same was true when one compared incomes of the larger chapters to incomes of the smaller chapters. The mean income per student in the smaller chapters was \$23.39 as compared to \$10.96 per student in the larger chapters. However, there was a wide range in chapter income with several chapters in both groups being far above or far below the mean.

A variety of fund-raising activities was used by FFA chapters in the Southwest District. A total of twenty-four activities was reported as sources of chapter income by teachers. The three most popular activities were collection of dues, sale of items built in the school shop, and operation of concession stands at ball games. The most successful activities in regard to profit were service oriented in nature. Such activities as slave auctions, fair booths, and meal catering could be considered under this category.

Selling items was the most unsuccessful of fund-raising activities tried by chapters. Competition with downtown merchants, conflicts with other school organizations and inferior products were problems encountered by several chapters. Examples of unsuccessful activities were selling vests, magazines, and unapproved safety equipment. Success of chapter activities depends upon cooperation from all the students. When teachers ranked their students on willingness to work on fund-raising activities the sophomore class was ranked first followed by the freshmen, juniors and seniors respectively.

The main expense items for chapters in the Southwest Kansas FFA District were District dues, FFA supplies, FFA banquet, judging trips, FFA parties, State FFA Convention, community service activities, National FFA Convention, and educational and pleasure trips.

Very few limitations were placed on chapter fund-raising activities by the administration and school board. Most administrators limited the number of money-making projects and preferred that the chapter limit selling and have more service projects.

Since the vocational agriculture program trains students for agriculture, fund-raising activities should be agricultural in nature with some educational value. For the activity to be successful, it must involve all the members and not compete with local merchants or other school organizations. Community acceptance of activities is essential and easy to obtain if the activities are worthwhile and meet the needs of the community. Generally the most successful activities are those in which the students are most interested and which are supported by the community. Such activities can be repeated year after year with good results.

Guidance by the instructor, community acceptance, and student enthusiasm are factors that determine the success of fund-raising activities. Strict scheduling of FFA activities to avoid conflicts is also essential for a profitable year.

AN IDENTIFICATION OF PROFESSIONAL COMPETENCIES
NEEDED BY HOME ECONOMISTS WHO ARE
PART-TIME ADULT EDUCATORS

Callsen, Margaret S.
Ph.D.

Kansas State University
1974

The purpose of this study was to (1) identify teaching competencies needed by home economists employed in positions in which the education of adults is one component of the position, (2) obtain a self-assessment of individual competencies and interest in an area, (3) secure a description of certain aspects of the positions held by home economists.

Methods and Procedures

Data were gathered from 124 home economists employed in Kansas by the cooperative extension service, business and industry, public schools, and health and welfare agencies.

The instrument used to obtain the data was developed using the DELPHI technique. It featured an inventory of forty-one competencies identified as important by the committee. The participants were asked to rate the importance of each competency to someone in their present position on a five-point Likert-type scale.

Mean scores were obtained and used to rank the competencies. Two-way analysis of variance and t-tests were used to analyze the effects of (1) agency affiliation, (2) tenure in adult education positions, (3) involvement in adult education, and (4) preparation for adult education responsibilities.

Findings

The majority of the respondents devoted 50 percent or less of their time to adult education. The most common duty reported was planning and teaching classes. Home economists employed by extension and business and industry tended to work with more than two hundred adults. Home economists in public schools and health and welfare agencies worked with groups of less than two hundred.

Cumulative mean scores indicated eleven competencies were considered to be very important to the position held. These skills were in areas of communications, motivation, selection of teaching techniques, time management for the part-time adult educator role, competence in technical material, and confidence in self as an adult educator. The

means of twenty-seven of the competencies indicated that they were considered to be of moderate importance.

Five items in the areas of motivation, communication, selection of teaching techniques, confidence in ability as an adult educator, and dealing with a variety of backgrounds had means which placed them among the competencies ranked as most important by all groups.

F-tests applied to the variances showed that groups affiliated with certain agencies, having certain duties, having long-time experience in adult education or advanced levels of preparation tended to have significantly higher means indicating that these groups considered adult education skills more important than other groups.

Participants in the study showed the greatest amount of interest in improving their skills in subject matter, considerable interest in improving techniques of teaching adults and motivating adult learning, and little interest in skills of administration or evaluation.

Conclusions

Home economists in the study have some training needs which are of common interest to the four professional groups included in the study. Each professional group also has training needs which are of greater importance to that group than to the other professional groups.

The participants in the study perceived their role to be that of a teacher rather than an administrator of programs.

Recommendations

The preparation of home economists who will be part-time adult educators should develop a strong technical subject matter background as well as specific skills for work with adults.

Home economists who work with adults may be grouped for training by their need for information on a given topic rather than grouped strictly by professional interest.

ASPECTS OF STEVENS COUNTY FARMERS' KNOWLEDGE AND PRACTICES AS RELATED TO SORGHUM PEST MANAGEMENT

Carson, James Dale
M.S.

Kansas State University
1974

In 1968, an aphid called the greenbug, Schizaphis graminum (Rondani), became a major problem on sorghum plants in the High Plains.

This study measured the Stevens County farmers' knowledge and experience concerning greenbug control in the years 1968-73. Two methods were used to determine farmers' knowledge and experience. The first was a mail questionnaire in which 51 of the farmers, or 25 percent sampled, responded. The second method was an interview survey in which 12 of the pest management cooperators, 31 percent, were interviewed. The following areas were measured: farmers' knowledge concerning the identification and economic behavior of sorghum pests and predators; number of farmers that used control measures; the acres of sorghum that were treated from 1968-72; and which pesticides were applied.

Conclusions of the two methods of study were in agreement. They indicated that Stevens County farmers required more knowledge of the pests and predators affecting sorghum, and that over three-fourths of Stevens County farmers have been applying pesticides to an average of about 500 acres of grain sorghum per farmer.

Based on these results, the informal educational program of Stevens County will be expanded by the Stevens County Extension Agricultural Agent to increase farmers' knowledge and skills in pest management techniques for grain sorghum.

THE EFFECTIVENESS OF TEACHERS IN AREA VOCATIONAL- TECHNICAL SCHOOLS OF KANSAS AND THEIR ATTITUDES TOWARD THE DISADVANTAGED.

Cheek, Gerald D.
Ph.D.

Kansas State University
1972

The purpose of this study was to ascertain whether teachers in area vocational-technical schools of Kansas who are judged most effective by

their supervisors express attitudes which are more favorable toward disadvantaged students than do their colleagues who are judged least effective.

Hypotheses

The following null hypotheses were set forth as major expectancies: (1) There is no differences in the background of the instructors (twelve variables), (2) There is no differences in the opinions and attitudes toward the disadvantaged (fourteen categories), (3) There is no differences in the evaluation of instructors of the area schools, (4) There is no difference in the attitudes of instructors rated most effective and those rated least effective, (5) There is no difference in the attitudes of instructors and evaluators, (6) There is no difference in instructors' attitudes of rural and urban area schools, (7) There is no correlation between attitudes, backgrounds, and evaluations of teacher effectiveness, (8) Instructors expressed comments are independent of attitude scores and teacher evaluations.

Procedure

Data was collected from 422 instructors and 39 evaluators on a 106 item revised Faunce C.D. questionnaire, and a background questionnaire. An evaluation of each instructor was made by their supervisors, directors, and principals of fifteen different area vocational-technical schools.

Data were subjected to analysis of variance with Scheffe multiple comparisons, t-test of two independent samples, chi-square of independence and analysis of regression.

Findings and Conclusions

1. Significant differences were found in the instructors' background on the items of age, teaching experience, non-educational work experience and educational level. Differences also existed between schools in the evaluation of teacher effectiveness on all eight items used to rate them. There were no significant differences in total attitude scores of teachers toward disadvantaged students, but significant differences were found on categories of delinquent behavior, teaching methods and motivating, physical surroundings and the culture of the disadvantaged.

2. Teachers rated most effective do not have different attitudes toward disadvantaged students than those rated least effective. There were no significant differences found between the attitudes of rural and urban area vocational school instructors.

3. A positive and knowledgeable comment made by an instructor was found to be dependent on a high attitude score.

4. A significant correlation coefficient was found between women and total attitude score.

5. Instructors have less positive and knowledgeable opinions and attitudes toward the disadvantaged than those who evaluate them.

Recommendations

A search should be made for more sensitive instruments to measure attitudes toward the disadvantaged. New ways are needed to change negative opinions and beliefs toward disadvantaged students.

Methods must be found to recognize those who will and will not be successful teaching the disadvantaged and be placed accordingly.

AN ANALYSIS OF ECONOMIC EDUCATION AND CONSUMER EDUCATION KNOWLEDGES OF KANSAS HIGH SCHOOL SENIORS

Claar, Roger Charles
Ph.D.

Kansas State University
1973

The purpose of this study was to determine the knowledges and understandings of Kansas high school seniors in economic education and consumer education. The Test of Economic Understanding Form B published by Science Research Associates and developed by the Joint Council on Economic Education and Beattie's Consumer Information Test (with four sub-tests: money management, credit, insurance, and savings and investments) were the instruments. After minor modifications, the Beattie instrument became known as the Consumer Education Test for the purposes of this study. The testing was done during the Fall of 1972.

Selected public high school seniors comprised the population sample. There were 1080 students in the study; 540 were administered the Test of Economic Understanding and 540 were administered the Consumer Education Test. The high schools in Kansas were divided into three groups of twelve each: metropolitan high schools, urban high schools, and rural high schools. These classifications were based upon U.S. Bureau of Census population density centers. Thirty students were randomly selected from each school. Fifteen students at each school were administered

the Test of Economic Understanding and fifteen were administered the Consumer Education Test. There were 540 seniors selected (180 from each of the three school classifications) to take the Test of Economic Understanding and 540 other seniors (again, 180 from each of the three school classifications) to take the Consumer Education Test.

The conclusions of the study were:

1. Sixteen and seventeen year old students scored significantly higher on all tests administered than eighteen year old students.
2. Males and females scored the same on the tests except in the sub-test on savings and investments where males scored significantly higher.
3. Students who have taken an economics course scored significantly higher than those that had not on the Test of Economic Understanding. There was no significant difference between students who had completed economics courses and those who had not with respect to the Consumer Education Test.
4. Students who had completed consumer education classes did not score any differently than those students who had not had a course.
5. College preparatory students scored significantly higher than those students in the general education curriculum and the vocational education curriculum.
6. Work experience had no significant effect upon the students' scores on any of the consumer education tests. On the Test of Economic Understanding students who had worked only one summer scored significantly higher than those students who had worked more than one year.
7. Students in schools claiming to have economic education programs and consumer education programs did not score any differently than students in schools without such programs.
8. With the exception of the money management sub-test, location of the school in either a metropolitan, urban, or rural area made no differences in students' knowledges. Rural high school seniors scored significantly higher than metropolitan high school seniors on the money management sub-test.

THE RELATIONSHIP OF CAREER EDUCATION TEACHER INSERVICE PREPARATION TO THE VOCATIONAL DE- VELOPMENT OF SIXTH GRADE SCHOOL CHILDREN

Clapsaddle, David K.
Ph.D.

Kansas State University
1973

Statement of the Problem

This study was conducted to determine the relationship between career education teacher inservice preparation and the vocational development of sixth grade school children.

Methods and Procedures

There were two groups of sixth grade school children involved in this study. The experimental group, consisting of 122 sixth grade children enrolled in one elementary school, received instruction from teachers who participated in the career education teacher inservice preparation. The control group, consisting of sixty-five sixth grade children enrolled in a similar elementary school, received instruction from teachers who did not participate in the career education inservice preparation.

Data from school records were received for each child in both groups with respect to sex; intelligence as measured by Otis Lennon's Elementary Form J; reading achievement as measured by the mean raw score of word meaning and paragraph meaning in the Stanford Achievement Test Intermediate II Form W; heads of household occupation and educational level. Subjects were classified as to socio-economic status by Hollingshead's The Two Factor Index of Social Position.

The Vocational Development Inventory (VDI) was administered as a pretest to each child in the study early in the spring semester of 1972, the VDI was administered as a posttest to each child in the study near the close of the same semester.

The analysis of covariance, simultaneously controlling for sex, intelligence, reading achievement, socio-economic status, and VDI pretest scores, was applied to VDI posttest scores to determine if there were any significant differences between the two groups ($p < .05$).

Findings

The analysis of covariance on VDI posttest scores revealed a significant difference between the adjusted means of the two groups, yielding an F of 17.50 ($df=1/180$; $p < .05$).

The test of homogeneity of regression revealed no significant difference between the two groups ($F=0.41$, $df=5/175$; $p .05$).

Conclusions

The hypothesis that there will be no significant difference between the vocational development of a group of sixth grade school children who received instruction from teachers who participated in career education inservice preparation and a similar group of children whose teachers did not participate in career education teacher inservice preparation was rejected. It was concluded that there was a significant relationship between career education teacher inservice preparation and the vocational development of the sixth grade school children who received instruction from teachers who participated in the preparation.

THE INVOLVEMENT OF KANSAS VOCATIONAL AGRICULTURE TEACHERS IN FARMING

Coltrain, Wayne O.
M. S.

Kansas State University
1969

The purpose of the study was to survey the teachers of vocational agriculture in Kansas relative to: (1) the percentage of vocational agriculture teachers of Kansas that live or have lived on farms; (2) how much farm experience Kansas vocational agriculture teachers have acquired; (3) the time involved in managing the teacher's farm; and (4) the use vocational agriculture teachers made of their farms for instructional purposes.

A questionnaire, accompanied by a letter, was mailed to the 179 vocational agriculture teachers in the state of Kansas. This represented the total number of vocational agriculture teachers from the seven districts in Kansas. The questionnaire covered fourteen items and included the following: (1) farm experience; (2) reasons for farming; (3) acres of land owned, rented, or managed; (4) instructional value of the teachers' farms and (5) time used by vocational agriculture teachers on their farms.

The information from the questionnaire was compiled and expressed in per cent using tables. Some graphs were used for the data. Comparisons were made among the seven districts from questions that were answered.

Of the 179 questionnaires which were sent to the teachers of vocational agriculture, 164, or 92 per cent, were returned. One hundred and fifty-five, or 95 per cent, of all agriculture teachers in Kansas have lived on a farm. One hundred and fifteen teachers of vocational agriculture, or 70 per cent, have never lived on or managed a farm while teaching. Fifty-five per cent of the Kansas teachers have had from one to five years of farm experience since high school graduation. One hundred and twenty-one, or 70 per cent, do not own a farm. Twenty-six per cent of the teachers rented land. Thirty-two of the respondents, or 20 per cent, lived on a farm in 1968. One-half, or 50 per cent, of the teachers of vocational agriculture were of the opinion that a teacher should teach and farm at the same time. Thirty-eight teachers that responded to the questionnaire, or 93 per cent, believed that living on a farm made them a more effective teacher. Seventeen teachers, or 41 per cent, used their farms for student field trips. Seventy-seven per cent of the respondents spent less than five hours each year on their own farms with their students. Forty-six per cent of the teachers answering the questionnaire that lived on a farm spent less than ten hours each week working at home. Twenty-two, or 58 per cent, of the vocational agriculture teachers in Kansas that lived on a farm listed supplementary income as their reason for living on the farm. Some other reasons mentioned were that they liked living on a farm, the farm was used as a hobby, and it was a good place to raise a family.

THE COMPETENCIES REQUIRED FOR EMPLOYMENT IN THE FERTILIZER INDUSTRY IN CHEROKEE AND CRAWFORD COUNTIES, KANSAS

Coltrane, Larry Harold
M. S.

Kansas State University
1970

The purpose of this study was to give guidance to the agricultural occupations part of the vocational agriculture curriculum at Southeast High School. The writer endeavored to secure the opinions of retail fertilizer dealers as to the competencies necessary for employment in the retail fertilizer industry.

Twelve firms returned questionnaires in the collection of data. The research population consisted of managers or owners of fertilizer firms in Cherokee and Crawford Counties, Kansas. The questionnaire was set

up in six different areas and each of the areas were broken down into a number of abilities or understandings.

The respondents were asked to rate the importance of the various competencies using a rating scale of four for very important, three for somewhat important, two for little importance, and one for no importance.

The firms were divided into two groups, the large and the small, based on the number of employees involved in fertilizer work. The large group consisted of those firms which had more than one person employed full time in fertilizer work. The small group had one or less full-time fertilizer employees.

The findings were that most of the employment expansion in the fertilizer area is being planned by the large group. Hiring of competent personnel is a problem with both the large and small dealers, but more of a problem with the large firms. There was not a majority of either group of retailers interested in hiring vocational agriculture students as part-time workers in a learning capacity.

Understandings in related areas and abilities in mechanical areas were the highest ranking competency areas with composite 3.6 ratings. They were followed by abilities in related areas with a rating of 3.5. Understandings in fertilizer received a 3.4 rating. The least important areas were those of abilities in plants and soils with a 3.3 rating and understandings in soils with a 3.25 rating.

Of the 41 competencies surveyed, those rated most important were the abilities to operate equipment in a safe manner, to perform routine equipment maintenance, to repair fertilizer equipment, to apply fertilizer to the soil properly and accurately, to meet the public well, to make mathematical calculations accurately, to follow instructions, to have enthusiasm, to accept and carry out responsibility, to make fertilizer recommendations from soil tests, and to have the willingness to work.

Those understandings rated highest were those of good employee-employer relationships, fertilizer grade, and characteristics of fertilizer materials.

It was found that there was a difference in the attitude of the large and small firms. The larger firms rated the competencies in related areas considerably higher than did the smaller firms. They also desired more competence in plant and soil abilities and understandings. In no competency area did the small firms rate the degree of competency needed higher than did the large firms.

The results of the data convinced the writer that local studies can do much to inform vocational agricultural departments of the attitudes

and expectations of prospective student employers. If all departments could have access to a local study concerned with all phases of agricultural industry, adaptations in the courses of study could be made to much better meet the needs of the community.

PREDICTION OF CLASS PERFORMANCE AND PROGRAM COMPLETION OF VOCATIONAL STUDENTS

Cobb, Kenneth C.
Ph. D.

Kansas State University
1974

The purpose of this study was to identify a set of variables that would enable an instructor or vocational counselor to advise prospective students as to the likelihood of their success in a particular vocational training program. Aptitudes measured by the General Aptitude Test Battery and the following selected variables were used in the study: sex, age, marital status, personality rating, attendance, vocabulary, reading comprehension, practical arts background, and highest grade level achieved. Numerous statistical analysis were conducted including t-test, Pearson product-moment correlation, analysis of variance and multiple regression.

Data was collected from student records at Flint Hills Area Vocational-Technical School at Emporia, Kansas. The sample included 715 students enrolled at the school from 1969 through the fall of 1972. The study included all programs offered including; automotive mechanics, building trades, distributive education, office education, dental assisting, graphic arts, electronics, machine tooling, welding, vocational agriculture and license practical nursing. The criteria measures included teacher assigned grades and completion of a vocational program.

The results of the study were:

1. Certain characteristics are predictive of student success in occupational programs and patterns can be determined at least on a local level.
2. Sex and personality were found to be important in predicting program completion.

3. In this study there was no significant correlation found between reading and vocabulary scores and student performance.

4. Girls had a tendency to score higher in class grades and were more apt to complete a vocational program than the boys studied.

5. Personality was found to be a significant predictor of student success.

6. Post high students are about as apt to drop out of a program but likely to perform at a higher level than high school students.

7. No significant differences were found between students who attended class three hours a day compared with students attending class six hours a day.

8. Married students performed at a slightly higher level than single students.

9. There were significant correlations between the variables studied and student success in each of the eleven programs studied.

10. Of the sixteen variables utilized, sex, age, personality, highest grade level achieved, and the GATB (G) intelligence score were found to be most predictive in the overall prediction of vocational student success.

11. In summarizing the results for each program in the restricted models, personality occurred eleven out of thirteen times, GATB (G) intelligence score ten out of thirteen times and the highest grade achieved seven times out of thirteen.

12. Predictive schemes can be found that are more predictive for some programs than for others.

13. The Stepwise Deletion Multiple Regression analysis utilized in this study yielded R^2 values from .687 for machine tool to .273 for graphic arts.

14. In the programs studied, from two to five variables can be used to help predict student success.

15. Adequate evidence was not found that could be used to help predict program completion.

16. In the overall prediction scheme the following factors were retained in the restricted model: sex, age, personality rating, highest grade level achieved and the GATB (G) intelligence score.

A FOLLOW-UP STUDY OF LA CYGNE HIGH SCHOOL MALE
GRADUATES BETWEEN THE YEARS 1960-69

Creager, Marvin W.
M. S.

Kansas State University
1971

The purpose of this study was to identify the occupational status of vocational agricultural and non vocational agricultural graduates of La Cygne High School for the years 1960-69. A questionnaire was developed and mailed to the 139 male graduates for whom addresses could be obtained. Questionnaires were returned by 110 of the 144 graduates for a 76.4% return.

The results indicated that 93.3% of the boys who had vocational agriculture were from the farm and 6.3% were from town. Eighteen or 38.3% of the Vo-Ag graduates were in some phase of farming with seven being full-time farmers.

The results indicated that 45.2% of the Vo-Ag graduates considered farm mechanics as the agricultural area of most benefit after graduation. It was found that both Vo-Ag and non Vo-Ag groups perceived their math courses as being the most beneficial to them after graduation. When asked to list the courses they perceived they should have had while in high school, but did not have, vocational or technical courses were indicated most often with math and social science also ranking high.

The earnings of the Vo-Ag graduates tended to be clustered more in the center of the earnings distribution while the non Vo-Ag graduates had a higher frequency of earnings in the lower and upper ranges. Although the average earnings were nearly equal, responses indicated 37.7% of the non Vo-Ag graduates were earning over \$8000 annually, while only 21.2% of the Vo-Ag graduates were earning over this much. Little difference was found in the number of Vo-Ag graduates who held college degrees. Parents were found to be a strong influence on the graduate's choice of occupation.

The results of the study indicated that the holding power of the vocational agriculture department was strong with 81.3% of the Vo-Ag students completing all four years. Forty-three percent of the male graduates completed two or more years of Vo-Ag and 38.3% of the Vo-Ag graduates were in some phase of farming as compared to 3.1% for the non Vo-Ag graduates.

In the first three years following graduation the highest percentage of Vo-Ag graduates had obtained some form of post secondary education. The percentage of graduates going into farming remained fairly constant for the first eight years after graduation but increased in the ninth and tenth years. In the ninth year following graduation 41.7% of the 12 Vo-Ag graduates were farming. In the tenth year following graduation, 66.7% or two of the three Vo-Ag graduates were farming.

In the non Vo-Ag group there was a greater percentage of graduates who were in the military service, a considerably smaller percentage in farming, a slightly larger percentage in ag-related occupations. Two of the 63 non Vo-Ag graduates were engaged in farming. About the same percentage in each group of graduates attended school or college.

The results of this study indicated that graduates of La Cygne High School were successful with an unemployment rate of less than 1%. One of the 110 graduates who responded was unemployed for as much as one year, although fourteen indicated that they did not work while attending school or college. Approximately one-half of the Vo-Ag graduates were in farming and ag-related jobs, and about one-half were in non ag-related jobs. About one-fifth of the non Vo-Ag graduates were in ag-related jobs and approximately four-fifths were in non ag-related jobs.

It appeared that the educational programs at La Cygne High School were flexible and successful. Programs were recommended which would continue this flexibility and emphasize agricultural occupations and to include the development of competencies for occupations other than those of an agricultural nature.

AN ANALYSIS OF THE ACCURACY OF MODIFIED MATRIX PROJECTED OCCUPATIONAL PROFILES FOR URBAN LABOR MARKETS

Daniels, R. B.
Ph. D.

Kansas State University
1973

In 1971, the Division of Vocational Education of the Kansas State Department of Education contracted with Kansas State University for the development of a management information system. An integral part of the system was the projection of manpower needs for the state of Kansas. The procedure developed for this task was a modified version of the Bureau of Labor Statistics Matrix Approach.

In 1972, the manpower projection system was operational. At this time, the Division of Vocational Education requested a study be performed to set some accuracy parameters on the manpower needs projections produced by the system. Dr. Jimmie L. Downing completed a study in this area in the fall of 1972. His study was limited from the standpoint that the data used to evaluate the system was from two rural Kansas counties. Further studies which would involve larger urban Kansas counties were requested.

This study extended Downing's work to include an urban oriented Kansas county (Harvey). A one hundred percent non-farm employment survey was conducted in Harvey County. The results of this survey were compared with matrix profile projections.

Downing's predictions of error in the matrix projections were found to be slightly high. A linear regression analysis of the actual error found in projections for Harvey County and the error in Harvey County projections predicted by Downing resulted in the relationship equation $Y = 1.051X + 5.590$ where Y is the error predicted by Downing and X is the actual error.

Curvilinear regression where Y equaled the actual error by projection in Harvey County, X_1 equaled the size of the projection and X_2 equaled the size of the projection squared resulted in the equation $Y = 1.660 + .277X - .00019X^2$. In comparing this error prediction equation with a similar equation developed by Downing, it was possible to describe the effect of urban-rural factors on the accuracy of profile projections.

Based on the results of this study, it was concluded that error in profile projections was within acceptable parameters for planning vocational and technical education in the state and a recommendation was made to this effect. This conclusion and recommendation was based on the premise that the average need for workers was approximately four percent of the number of that type of workers in the labor force and hence when profile projections were large enough to justify training programs, the error was relatively small.

A STUDY OF THE ATTITUDES AND CHARACTERISTICS OF
VOCATIONAL REHABILITATION COUNSELORS
WHICH AFFECT PRODUCTION

Davis, B. Glen
Ph. D.

Kansas State University
1972

Statement of the Problem

This study was undertaken to investigate the relationship which existed between the case loads of Kansas vocational rehabilitation counselors and their success; success being measured by the number of (26) closures.

The term (26) closure was used in this study to refer to a handicapped individual who was accepted by a rehabilitation agency and successfully completed the activities included in his rehabilitation plan, and was gainfully employed for a period of 30 days or more.

The study was concerned with trying to determine vocational rehabilitation counselors in the state of Kansas who believed that case load size had a direct effect on the number of (26) closures. The study was specifically concerned with the relationship which existed between the size of case loads of Kansas vocational rehabilitation counselors to the number of (26) closures.

Methods and Procedures

From a total possible population of 58 counselors, 47 were chosen for the purposes of this study. Only those vocational rehabilitation counselors using status (26) closures as an end product and who did not work primarily with the mentally retarded were studied.

The data used in this investigation was gathered from the Kansas Department of Social Services, Division of Rehabilitation records and an instrument developed by the researcher. The instrument was developed and validated by using the Delphi Technique.

Multiple regression was used to statistically analyze the data of this study with the exception of one discrete variable which could not be treated as continuous. The simple analysis of variance was used to statistically analyze the one discrete variable. In testing for significant difference in this study the .05 level of significance was used.

Findings

Nine hypotheses in the null form were tested in this study. Two of these hypotheses were found to have a significant F-ratio. When compared with production, as measured by the number of (26) closures obtained, the counselors' attitude toward imposed quotas and tenure of the vocational rehabilitation counselors were found to have a significant F-ratio. The number of counselors having a negative attitude toward imposed quotas was significantly larger than those having a positive attitude. The counselors who have been employed for more than five years have a significantly larger number of (26) closures. In further analysis of these two variables it was determined that case load size which was compared in combination with these two variables, was contributing significantly to the variability of production.

While it was found that case load size contributed significantly to the variability of production, the obtained F-ratio was nonsignificant. No significant difference was found between the size of case load and the attitudes of the counselors toward imposed quotas.

No significant differences were found between percent of time spent on various aspects of counseling, the counselors' attitude toward case load size, age of the counselor, sex of the counselor, major field of preparation and the criterion variable, the number of status (26) closures.

ATTITUDES OF KENTUCKY SECONDARY TEACHERS TOWARD CONSUMER ISSUES AND EMPHASIS GIVEN THESE ISSUES

Davis, Rose Marie
Ph. D.

Kansas State University
1973

Statement of the Problem

The major purposes of this study were to measure what differences, if any, exist among Kentucky secondary school teachers of home economics, business and office occupations, social studies, and distributive education with respect to their attitudes toward and their emphases of selected consumer issues. Supplementary objectives were to identify what teacher education institutions were doing to prepare teachers to teach consumer

education, to identify consumer education courses the teachers surveyed had taken, and to determine when, how, and where these courses were taken.

Methods and Procedures

Forty-eight issues, grouped into ten categories, were included in an instrument that was sent to a randomly selected sample of forty-five teachers from each of the four teacher groups studied. On a five point Likert-type scale, teachers were asked to indicate agreement or disagreement with each issue and to rate the emphasis given each issue in their program objectives. The first thirty returns from each teacher group were analyzed statistically. The analysis of variance technique was used as a test of significance for all but one of the hypotheses. On one hypothesis, the Kruskal-Wallis test was used. The Scheffe test was used to make multiple comparisons. In testing for significant difference the .05 level of significance was used.

The data information page of the questionnaire revealed that the teachers sampled represented each of the educational regions of the state, different age groups, variation of teacher experience, different size schools, and different size communities.

Results

Consumer issues were grouped into advertising, consumer organization, consumer rights, credit, fraud, governmental regulations, health and safety, insurance, labeling and product performance categories. A statistically significant difference was found in the attitudes toward consumer issues and the emphases given these issues among secondary teachers of home economics, social studies, business and office occupations, and distributive education.

Home economics was the only teaching area that had teacher education institutions requiring a course in consumer education. At two of the eight institutions, business and office occupations offered but did not require consumer education. Outside of home economics, very little in-service consumer education was available.

The majority of the teachers in this study had not had more than three hours of course credit in consumer education. A fourth of the sample indicated they had no hours in consumer education.

Implications

Although home economics is the only discipline specifically charged with the responsibility of teaching consumer education, it tends to reach only a limited number of high school students. Much emphasis has been

given consumer education during the past four years, but this study indicates a need for continued emphasis and additional in-service and pre-service teacher preparation for those expected to teach consumer education. There is evidence that overall planning and coordination of consumer education curriculum areas is needed in Kentucky.

A FOLLOW-UP STUDY OF THE 1972-73 AREA VOCATIONAL SCHOOL GRADUATES PLACED IN KANSAS, COMPARING TEACHER REPORTED OCCUPATIONS WITH EMPLOYER REPORTED OCCUPATIONS

Devane, Larry F.
Ph. D.

Kansas State University
1975

Statement of the Problem

This study was concerned with answering the following questions as they relate to the 1972-73 Vocational School graduates placed in Kansas.

1. How accurate is the follow-up data gathered in Kansas using the teacher contact method as indicated by:
 - a. did the teachers correctly report the firm employing placed graduates?
 - b. did the teachers correctly report the job titles of placed graduates?
2. Have teachers correctly reported graduate occupations in terms of "placed related to training" or "not placed related to training?"
3. Is there a difference between schools in terms of accuracy of follow-up reporting?

Methods and Procedures

Data was collected directly from three populations for this study. These three populations were (1) 1972-73 school year teachers in Kansas Area Vocational Technical Schools, (2) Kansas employers who hired vocational and technical graduates from the Area Vocational Technical Schools

in 1973, and (3) State Vocational Service Area Administrators. The data collected from these populations concerned (1) placement data on vocational and technical graduates from the area schools and (2) the relatedness of reported occupations relative to the training received by graduates.

There were three samples used in this study which were representative of the three populations. The first sample consisted of Area Vocational Technical School teachers from the population of all 1972-73 Area Vocational Technical School teachers having graduates who were placed in Kansas. The second sample used in this study consisted of the employers in Kansas who hired graduates of the 1972-73 vocational training programs. The third sample used in the study was composed of the five State Vocational Service Area Administrators. In the third sample the number of respondents equaled the total number of the 1973 population.

Findings

Eight of nine hypotheses tested in this study were rejected. The ninth hypothesis would have been rejected if a less rigid level of confidence had been applied. The ninth hypothesis would have been rejected at the .07 level of confidence. There were significant differences between what teachers reported graduates were doing and what employers indicated the graduates were doing. Teachers reported incorrect employers 17.5 percent of the time. Further, of the graduates who were reported in the correct firm, 5.7 percent were reported with completely incorrect job titles according to employers. Another 16.6 percent of the graduates were reported with job titles which were only related to the actual job titles. Finally, only 77.7 percent were reported with the correct job title.

There were significant differences between schools, programs, and service areas relative to both accuracy of firm reported and job title reported. No clear cut pattern in the error could be identified.

An additional finding was that teachers and State Vocational Service Area Administrators did not agree on what job titles constituted related employment. Of the 927 job titles reported by teachers as being related to training 214 were identified as being non-related by State Vocational Service Area Administrators.

Overall analysis of the study would strongly confirm the findings of the literature review which indicated that placement and follow-up of graduates is an integral part of Vocational Education programs.

A COST/BENEFIT ANALYSIS OF TRAINING PROGRAMS IN KANSAS'
FOURTEEN VOCATIONAL AREA SCHOOLS

De Vore, Jack Brace, Jr.
Ph. D.

Kansas State University
1973

The study attempted to answer the question, "Does the type and/or location of vocational programs influence the societal accrued long run benefits and societal payback periods?" The population selected for use in this study consisted of all programs in the fourteen Kansas Area Vocational Technical Schools.

The hypotheses tested were:

1. There is no significant difference between payback periods for the different program types in the fourteen area schools in Kansas. Hypothesis 1 was rejected on the basis of an F-ratio of 23.4.
2. There is no significant difference between the accrued long run benefits from the different vocational program types in the fourteen area schools in Kansas. Hypothesis 2 was rejected on the basis of an F-ratio of 37.2.
3. There is no significant difference in the payback periods for vocational programs in the different area schools in Kansas. Hypothesis 3 was retained on the basis of an F-ratio of .30.
4. There is no significant difference in the accrued long run benefits for vocational programs in the different area schools in Kansas. Hypothesis 4 was retained on the basis of an F-ratio of .26.

The cost/benefit model provided an estimate of payback periods and accrued long run benefits. The payback periods were determined from the intersection of a line representing the accumulated productivity of a non-vocational graduate and a line representing the accumulated productivity of a vocational graduate on a time and dollar graph. The accrued long run benefits were determined by examining the difference between these lines when time equals forty-seven years after high school graduation.

The simple analysis of variance with unequal samples technique was used to evaluate the four hypotheses. F-ratios were calculated and the null hypotheses were retained if the calculated F-ratios were smaller than the tabled F-distribution at the .01 level.

Accrued long run benefits and payback periods were to some extent dependent upon program type. The geographic location of the program type (school) appeared to have little effect on the accrued long run benefits and payback periods.

The cost/benefit study indicated that the training in the fourteen area vocational and technical schools in Kansas did not return society's original financial investment. Placement, instructional cost and length of training programs were major variables contributing to this finding.

AN EVALUATION OF THE EFFECTIVENESS OF AN ADULT EDUCATION MEETING

Dierking, Joyce T.
M. S.

Kansas State University
1970

Purpose

The purpose of the study was to evaluate the effectiveness of an adult education meeting in terms of cognitive learning acquired by the participants.

Objectives

The specific objectives of the study were:

1. To determine the amount of learning that takes place during an adult education meeting when nutrition information is presented to mothers of teenagers.
2. To determine how much of the learning that takes place during an adult education meeting is retained after a period of 30 days.
3. To determine if there are relationships between the amount of learning that takes place during an adult education meeting and such personal and situational factors as age, place of residence, education, attitude, and method of presentation.

Procedure

The sample selected for the study included mothers of teenagers who were members of Extension Homemakers Units and those who were 4-H

foods leaders in Sedgwick County, Kansas who expressed a willingness to participate in the study. The random sample consisted of 58 mothers.

The topic selected for presentation was "Teenage Nutrition." One half of the participants listened to the presentation "live" and the other half observed an identical presentation on video tape.

Two educational objectives were established to guide the presentation.

A pre-test to measure knowledge level was given to all participants at the beginning of the meeting. A post-test was given immediately following the meeting and a follow-up test was given thirty days later. An attitude scale was administered along with the post and follow-up tests.

The analysis of data was based on six null hypotheses. Statistical measures used were the t test and coefficient of correlation.

Findings

A significant difference was found between the level of knowledge of teenage nutrition possessed by study participants before and immediately after a presentation on teenage nutrition. Likewise, a significant difference was found between the level of knowledge of teenage nutrition possessed by participants before a presentation on teenage nutrition and thirty days later.

No important associations were found between the amount of educational information that could be recalled immediately after a presentation on teenage nutrition and age, education, attitude, or place of residence. No important associations were found between the amount of educational information that could be recalled thirty days after a presentation on teenage nutrition and age, education, attitude, or place of residence.

No significant difference was found in the amount of educational information that could be recalled immediately by study participants when the information was presented live and via video tape. However, the difference was significant between the amount of educational information retained after thirty days and the method of presentation. Those participants viewing the presentation live were able to recall significantly more information than those who viewed the video tape presentation.

Recommendations

1. Adult education meetings should be evaluated objectively to determine their effectiveness. Many teachers evaluate their meetings only by a few comments made rather than by evaluating objectively. Attitudes, as well as the amount of learning, should be evaluated.

2. More research should be done in the area of video tape as a media for presenting educational information to adults. The findings of this study need confirmation by further studies.

3. Further studies need to be conducted to determine the amount of retention not only at 30 days, but also 60 days, 90 days and 6 months.

4. Studies showing the principles learned at meetings that are actually put into practice would be a valuable tool in planning future adult education meetings.

A COMPARISON OF FEDERAL MATRIX MANPOWER NEEDS PROJECTIONS AND EMPLOYER SURVEY MANPOWER NEEDS PROJECTIONS FOR SMALL LABOR MARKETS

Downing, Jimmie Lee
Ph. D.

Kansas State University
1972

In September of 1971, the Division of Vocational Education of the Kansas Department of Education contracted with Kansas State University for the development of a management information system to aid in the planning of vocational and technical education. An integral part of this system is a modified BLS matrix technique designed to forecast manpower needs in local labor markets.

The first objective of this study was to evaluate the accuracy of the modified Bureau of Labor Statistics approach used to estimate occupational profiles in small labor markets in Kansas.

The second objective was to identify a formula which would indicate expected error for various sized profile estimates.

All firms in two small Kansas counties were surveyed to determine actual occupational profiles. The actual profiles were compared with profile estimates generated by the modified matrix approach to determine if there was a fit. A curvilinear regression analysis was conducted to identify an equation which expressed the relationship between the size of an estimate and expected error in the estimate.

The profile estimate for one of the two counties was a fit (relative to the actual profile) while the estimated profile of the other county did not fit. Error in the estimate originated from three principle sources which were:

1. Occasionally the matrix county could not discriminate between closely related occupations such as Machinists and Machine Tool Operators.
2. The source of data for the modified matrix approach (employment by Standard Industrial Class) had some error in coding.
3. The rural/urban effect caused salesworkers and managers to be over estimated in rural counties.

The relationship of the size of the projections and the size of the expected error is expressed by the equation:

$$Y = .7721 + .368X - .00019X^2$$

where Y is the size of error and X is the size of projection.

It can be seen that as the size of the projections increase, the percent of error decreases. Since the average need for manpower in Kansas is approximately four percent of the profiles (on the average) the percent of error in projections of manpower needs can be estimated.

The modified matrix technique can be used to plan vocational and technical education for small labor markets if the limitations of the projections and the expected error factors are thoroughly understood by the planners. The greater the size of the labor market, the greater the confidence in the data which leads to the conclusion that planning should be based on larger labor markets (combinations of counties) if possible.

It is desirable to plan on the basis of occupational clusters since the matrix approach may have difficulty discriminating between related occupations. When planning for strictly rural or urban areas, the planners should consider possible effect of the rural/urban factor.

This study should have a significant impact on the collection of manpower demand data used to plan vocational and technical education across the nation. The modified Bureau of Labor Statistics matrix approach used to project manpower needs in Kansas is cheaper and quicker than methods used in other states. In addition there is seldom, if ever, any estimates of error parameters associated with other manpower needs projections.

Given the cost and time factors and the knowledge of probable error parameters derived from this study, insight into a new and innovative approach to a problem which has long frustrated vocational and technical education planners is achieved.

A PHYSICAL FACILITY UTILIZATION SURVEY OF THE
FOURTEEN AREA VOCATIONAL-TECHNICAL
SCHOOLS IN KANSAS

Downs, James C.
Ph. D.

Kansas State University
1973

This study attempted to answer the question, "Is there justification for additional state expenditures for the renovation and/or construction of physical facilities at the fourteen area vocational-technical schools in Kansas?" The population consisted of all regular day-school programs in the fourteen Kansas area vocational-technical schools.

The Spearman Rank Correlation Coefficient provided significant positive correlations between student capacity and total square footage and between student interest and the funds requested for physical facility expansion. No significant correlations were found to exist between program facility utilization rates and student overflow, between program facility utilization rates and student placement, or between manpower needs and the funds requested for physical facility expansion.

The Wilcoxon matched-pairs, signed-ranks test indicated that there was no significant difference between full student capacity and total potential student applications.

The comparison of student capacity and total square footage by school suggested that capacity is related to physical facility size. A comparison was made between the use of physical facilities for programs with high student interest and the use of physical facilities for programs with low student interest. It was concluded from this comparison that student overflow could be decreased through better physical facility utilization.

The comparison of program facility utilization rates and program placement rates demonstrated that placement rates did not decrease with greater facility usage. When full student capacity and total student applications by programs were compared, the result indicated that the existing physical facilities could adequately serve all current applicants if the applicants were (1) willing to relocate to attend another area school, or (2) willing to enroll in a program other than their first choice.

A comparison of manpower needs and funds requested for physical facility expansion suggested that manpower needs were not being used as a high priority criterion when requesting funds. Student interest, however, was found to be highly related to the funds requested for physical facility expansion.

INTEREST IN THE NATIONAL FUTURE FARMER MAGAZINE
AS EXPRESSED BY FUTURE FARMERS OF AMERICA
WITH DIFFERENT OCCUPATIONAL GOALS

Erpelding, Lawrence H., Jr.
M. S.

Kansas State University
1969

The purposes of this study were (1) to determine the expressed levels of interests in selected editorial content of The National Future Farmer by Future Farmers of America who stated different occupational goals, and (2) to investigate whether there was a difference in the expressed levels of interest among FFA members who stated different occupational goals.

A null hypothesis was used to analyze the data collected in this study. The null hypothesis stated that there was no significant difference in the stated level of interest in selected editorial content of The National Future Farmer among FFA members whose expressed occupational goals were to enter (1) farming or ranching, (2) agricultural related occupations, or (3) nonagricultural occupations after completion of their formal education.

The data for this study was obtained by use of an opinionnaire which was personally delivered and collected. The population consisted of FFA members who were students in the sixteen vocational agriculture departments located within a forty-mile radius of Manhattan, Kansas. Eight vocational agriculture departments were randomly selected and the FFA members who were students in those departments and were present on the day the instrument was administered comprised the sample.

Data from the sample of 239 FFA members were processed by use of an IBM computer which provided observed frequency, expected frequency, per cent, and chi-square analysis. The .05 level of significance for chi square was used to determine significant differences of interest.

The study considered only how FFA members who stated different occupational goals (farming or ranching, agricultural related occupations, and nonagricultural occupations) expressed their degree of interest in the fifteen selected portions of editorial content. The author recognized that many variables enter into the results.

The following conclusions were established from a study of the data analyzed concerning FFA members within a forty-mile radius of Manhattan, Kansas, who stated different occupational goals.

The expressed levels of interest among FFA members do not significantly differ regarding the following editorial areas of The National Future Farmer:

- (a) agricultural articles
- (b) agricultural mechanics articles
- (c) career articles
- (d) FFA articles
- (e) recreational articles
- (f) "Chapter Scoop"
- (g) "FFA in Action"
- (h) "Free for You"
- (i) "From the Mailbag"
- (j) "Have You Heard the One About"
- (k) "Looking Ahead"
- (l) "Photo Round-Up"
- (m) "Something New"
- (n) "Sportrait"
- (o) "Word with the Editor."

PROFESSIONAL EDUCATION COMPETENCY NEEDS OF
TEACHERS OF VOCATIONAL-TECHNICAL PROGRAMS
IN POSTSECONDARY SCHOOLS

Erpelding, Lawrence H., Jr.
Ph. D.

Kansas State University
1972

The primary purpose of this study was to ascertain the professional education competency needs of postsecondary occupational education teachers in Kansas. The study was limited to 120 occupational education teachers in area vocational technical schools and community junior colleges in Kansas. The occupational areas represented were: agricultural education, business and office education, distributive education, health occupations, home economics, and trade and industrial education.

The study involved the identification of 45 professional education competencies considered useful and necessary for postsecondary occupational education teachers. A research instrument was developed to allow respondents to rate level of proficiency required, proficiency attained, and designate the type of educational setting where proficiency in the competency might best be attained.

Four hypotheses served as the basis for the study. They were:

1. There are no significant differences in the level of proficiency of selected professional education competencies considered to be necessary for success by postsecondary occupational education teachers in different occupational areas.
2. There are no significant differences in the level of proficiency of selected professional education competencies which the postsecondary occupational education teachers in different occupational areas considered themselves to possess.
3. There are no significant differences between the level of proficiency required and possessed for certain professional education competencies for each occupational area.
4. There are no significant differences among teachers in various occupational areas regarding their opinions of the type of educational setting in which each professional education competency may best be attained.

The Analysis of Variance technique was used to test Hypothesis One and Two. Tukey's multiple comparison procedure was used to determine the occupational areas between which significant differences for proficiency level required or attained existed. The level of significance was set at the .05 level. Hypothesis One was retained for 40 of the 45 professional education competencies. These findings suggested that there were a large number of similarities in the levels of proficiency related to the 45 professional education competencies required for success by postsecondary teachers in the six occupational areas. Hypothesis Two was retained for 25 of the 45 competencies.

The T-test for Related Samples was used to test Hypothesis Three. The level of significance was established at the .05 level. The data indicated agriculture teachers perceived a need for in-service education for 33 of the 45 professional education competencies. Thirty-nine significantly lower mean scores for proficiency possessed compared to the mean scores for proficiency attained were isolated for business and office education teachers; 19 for distributive education teachers; 20 for health occupations teachers; 40 for home economics teachers; and 15 for trade and industrial education teachers.

The Chi Square Test of Independence was used to test Hypothesis Four, and the level of significance was set at the .05 level. The study indicated that teachers among the six occupational areas agreed in most instances about the types of educational settings in which the 45 competencies could best be attained. Responses for ten competencies indicated significant disagreement between occupational areas. However, there was disagreement by teachers within each occupational area. The teachers as a group were often undecided whether certain competencies could most

advantageously be attained in a comprehensive educational setting, comprehensive occupational area setting, or specific occupational area setting.

Recommendations were: teacher educators from various occupational areas should cooperate to serve the professional education competency needs of present and prospective postsecondary occupational education teachers; and State Department of Education staff should provide leadership and finances for the professional development of postsecondary occupational education teachers in the field.

A PROPOSED EDUCATIONAL PROGRAM IN VOCATIONAL AGRICULTURE FOR THE INSTITUTO RURAL METODISTA OF MONTERO, BOLIVIA

Etling, Arlen W.
M. S.

Kansas State University
1969

The problem was to explore the barriers and opportunities to establishing a program of vocational agricultural education at the Instituto Rural Metodista of Montero, Bolivia. Secondly, recommendations to exploit the barriers and opportunities to establishing such a program were developed.

An historical research of education in Bolivia, agriculture at Montero, and the American Farm School of Thessaloniki, Greece was carried out. A comparison was made between the features of the Greek school and the potential of the Instituto Rural to develop a set of recommendations. A review of literature on the specific areas reported was facilitated by literature dealing with education in developing countries and education in Latin American countries. The review of literature was also aided by visits by the investigator to both Montero and Thessaloniki.

Also included in the study was a recommended method of implementing the findings. The device used was a social action process of selling ideas and programs. This device was developed by the Kansas State University Extension Service.

Research indicated that economists consider education a sound investment. Some sources felt education was more important than capital investment.

A list of problems in developing countries which affected education included increasing population and a high proportion of the people engaged in agriculture. A shortage of funds and supplies, the lack of a necessary infra structure, low federal priority given to rural areas, and low regard of rural people for the schools were other problems cited.

Several benefits of education for development were cited. The formation of social and individual mobility and a middle class were mentioned. Institution and tool building was another contribution as was the creation of an attitude of change. Technical improvement, provided through education, helped greatly.

Adult education was considered quite significant in developing nations. Extension education was favored as the best approach here.

Characteristics of education in Latin American nations stem from a European colonial social structure which was changed little after independence until recently. Narrow curriculum offerings, limited opportunities, social class discrimination, and lack of creativity were all listed. Static teaching techniques, inadequate training of educators, high drop-out rates, and a need for vocational training were all affirmed.

Cautions were pointed out for developing educational programs. The current and historical cultural influences and the danger of external models were mentioned. Local planning of relevant, development-oriented curriculums was important. The need for supporting institutions, especially teacher-training colleges was great. The development of local vocational programs, especially in agriculture, was supported.

Considering, Bolivia, the Montero area (described in U. S. A. I. D. reports), the Instituto Rural Metodista, and the Greek school, a recommended program for vocational agriculture was developed. A three year program of agricultural and closely related subjects was suggested. The program divided the educational experiences into four areas: Classroom instruction, shop skills and practice, supervised experience on the school farm, and extracurricular activities of a young farmer club. The first year was devoted to general agriculture, the second featured crops and soils, and the third emphasized livestock.

Specific recommendations were made to formulate objectives, recruit students, emphasize development of Bolivian teachers, and improve the existing facilities. Also suggestions for the curriculum, the teaching approach, resources, and supplementary activities were made.

A STUDY OF CONDITIONS WHICH AFFECTED THE CHOICE
OF EITHER AN AGRICULTURAL EDUCATION MAJOR
OR OTHER AGRICULTURAL MAJOR

Fanning, Terry Dean
M. S.

Kansas State University
1969

The basic concern of this study was to ascertain what relationship existed between the background factors and the choice of a college major of certain groups of students in the College of Agriculture.

This study was prompted by the lack of sufficient numbers of students graduating from the agricultural education curriculum to meet the demands.

Of the subjects accepted for this study, 31 were former vocational agriculture students enrolled in agriculture education, 24 were former vocational agriculture students enrolled in other agricultural majors, and 15 were other agricultural majors who had no experience in vocational agriculture.

The results of the study indicated all groups of subjects had various factors in common. These factors are as follows:

1. The parents of all students had a similar education background.
2. Nearly 90 per cent of the subjects had lived on or operated a farm.
3. A similar percentage of the groups (65 per cent) felt there was a possibility of them becoming established in farming.
4. Twenty five per cent of the subjects in each group had relatives employed in agribusiness or areas related to farming.
5. An average of 38 per cent of the subjects had changed their college major at least once.

Several differences between the groups of subjects were indicated by this study. The main differences are:

1. The background of the student had an affect as to what associates of his had the most influence on the student in his selection of a college major.
2. The reaction of the student toward certain economic and intrinsic factors influenced the choice of a college major.

The last part of the questionnaire developed for this study asked "What do you think could be done in high school to help others in the selection of a college major?" Most of the answers could be grouped as follows:

1. Tell of job opportunities and fuller explanation of college curriculums.
2. Have college representatives visit high schools.
3. Encourage students to start thinking earlier in high school about college or occupations.
4. Closer work with students by high school counselor.

The conditions as disclosed by the questionnaire seemed to give validity to the recommendations made by the subjects.

By considering the differences that existed among the groups of students and the recommendations made by the subjects, a more influential recruitment program could be developed for channeling more of the qualified students into agricultural education.

AN EVALUATION OF FOURTEEN AREAS OF THE VOCATIONAL AGRICULTURE PROGRAM AT HILL CITY HIGH SCHOOL, 1952-1972

Farrell, Maurice Joseph
M.S.

Kansas State University
1973

The purpose of this study was to determine the occupational interests of the vocational agriculture graduates and to provide data which could be used to evaluate the fourteen areas of the vocational agriculture program at Hill City High School.

Data was obtained by sending a questionnaire to the graduates having had three or more years of vocational agriculture in Hill City High School from 1959 - 1972. A questionnaire was developed and mailed to eighty-seven graduates for whom addresses could be obtained. Questionnaires were returned by sixty-six of the ninety-three graduates.

The questionnaire was developed to evaluate fourteen areas of the vocational agriculture program. The areas were as follows: leadership training, record book, student notebook, judging contest work, FFA awards, two-hour Vo-Ag II class, farming program or work experience, mechanical skills, shop projects, chapter farm, field trips, technical agriculture information, social experiences in FFA, and occupational information.

The graduates responded to each of the fourteen areas on a Likert type scale which gave a choice of "very valuable," 4 points; "valuable," 2 points; and "no value," 0 points. The author considered weighted averages from 3.3 - 4.0 as being "very valuable"; those from 2.7 - 3.2 as being "valuable"; and those from 2.2 - 2.7 as being of "some value."

The findings indicated that 18.2 per cent of the graduates were farming, 27.3 per cent were in ag related occupations and 54.5 per cent were in non-ag related occupations. The non-ag related group included six respondents who were in the armed services.

It was found that the areas of mechanical skills, leadership training, shop projects, record book, and the farming program or work experience were rated the most valuable by the graduates on the basis of weighted averages and frequency of responses as being one of the three most important areas.

It was found that all areas of the vocational agriculture program, except the student notebook, were "very valuable" areas for the graduates entering the farming occupation. The ag related graduates rated eight areas in the "very valuable" category. The non-ag related respondents considered seven of the fourteen areas to be "very valuable."

The study indicated that the student notebook, judging contest work, FFA awards, technical agriculture information and field trips were of "some value" and would need to be improved or discontinued for the non-ag related graduates. The graduates in ag related occupations rated the two-hour Vo-Ag II class, FFA awards, and judging contest work as areas needing improvement.

The findings indicated that eighty-three per cent of the graduates chose the area of mechanical skills as one of the three most important areas of the vocational agriculture program. Occupational information, two-hour Vo-Ag II class and the chapter farm received the fewest responses as being one of the three most important areas.

On the basis of the findings of this study, it was concluded that the vocational agriculture program at Hill City High School had been effective in meeting the needs of the graduates in the areas of mechanical skills, leadership training, shop projects, record book and farming program or work experience.

As a result of the findings, the writer made the following recommendations:

1. Continue to emphasize the areas of the vocational agriculture program which were meeting the needs of the graduates in all occupational categories.
2. Improve those areas of the program that were of "some value" to the graduates.
3. Place more emphasis in the area of ag mechanics due to the number of graduates entering non-ag related occupations.
4. Continue to emphasize the leadership training through a strong FFA organization.
5. Conduct additional evaluation studies, particularly with regard to the chapter farm, before making major revisions in the vocational agriculture program.

THE RELATIONSHIP BETWEEN ENROLLMENT IN NINTH GRADE GENERAL SCIENCE AND SUCCESS IN SUBSEQUENT SCIENCE COURSES

Filipi, Frank J., Jr.
M. S.

Kansas State University
1972

The purpose of this study was to determine whether students taking general science at Belleville High School are more successful in subsequent science courses than students who do not take it. Information for this study was obtained from the permanent files at Belleville High School with permission from the administration. All of the graduates from 1969, 1970, and 1971 classes that had participated in the ACT testing program were selected for this study. The students were divided into two groups, those that had enrolled in general science and those that had not.

A survey of previous literature revealed that several leading educators advocated science at the ninth grade level be required. Some related studies showed little or no advantage of ninth grade science to other science courses and questioned its value.

Students from the two groups were compared after they had completed biology, chemistry, physics and the ACT tests. The natural science scores on the ACT test were used as a measure of achievement in science in high school. Grade point averages were used for subject matter. The (t) test for independent samples was used to determine if a significant difference could be found between the two groups. The study showed no significant differences were found. The students that had completed general science at the ninth grade level showed a higher mean natural science score in all the comparisons but none were found to be significant in this study.

Based on the results of this study, students at Belleville High School should not feel that by-passing ninth grade science will affect their ability in other science courses.

More study is recommended concerning the value of ninth grade science to students that have lower differential aptitude test scores and do not participate in the ACT testing program.

THE ROLE OF THE VOCATIONAL AGRICULTURAL INSTRUCTOR IN COORDINATING YOUNG FARMER PROGRAMS IN THE UNITED STATES

Flipse, Bruce R.
M. S.

Kansas State University
1971

The major purposes of this study were to clarify the role of the vocational agriculture instructor and the member participation for the total young farmer program. This study was designed to gain additional information to be used in improving young farmer education.

Evaluation of the review of literature showed that the role of the vocational agriculture instructor was still not well defined. Certain areas of inquiry showed agreement on the instructor's functions, but many other areas were still undecided.

Bothwell made a study and attempted to determine basic criteria for the instructor's role. This study was designed to supplement the findings of the study by Bothwell and to survey the opinions of 162 young farmers and 31 instructional leaders who attended the 1970 National Young Farmers Institute held in Wichita, Kansas, December 6-9. The questionnaire was developed with the help and approval of Dr. James Albracht, Department

of Adult and Occupational Education, Kansas State University and Mr. Dean Prochaska, Supervisor of Agricultural Education, State Department of Education of Kansas. It was designed to be the official enrollment form for the Institute. The questionnaire was designed to cover five areas of interest as follows:

- 1) Who can best decide on course content?
- 2) How much of the teaching should be done by the vocational agriculture instructor?
- 3) How many farm visits should the instructor make to young farmers?
- 4) How many classes should the young farmer be required to attend?
- 5) How much enrollment fee should the young farmer pay to help meet the expenses of the class?

The responses of the combined groups, revealed that 69 percent indicated a preference for young farmers to decide the course content. There was an additional 22 percent who indicated that young farmers, vocational agriculture instructors, and local and/or state committees or councils should be used in deciding course content.

The vocational agriculture instructor's role as the primary class instructor was a question viewed with mixed reactions. The largest response or 41.8 percent indicated that the vocational agriculture instructor should teach one-fourth of the classes. Twenty-eight percent of the respondents answered none while 20.9 percent preferred that the vocational agriculture instructor teach one-half of the classes.

Instructor visits to member farms also revealed some variation of opinion. One visit was preferred by 42.9 percent of the respondents which was the largest response for the four choices. Eighteen and one-half percent preferred two visits and 34.8 percent preferred three or more visits per year.

Both groups indicated that the young farmers should attend three-fourths or more of the class meetings. Agreeing on this choice were 87.9 percent of the respondents.

Fee assessment, for class enrollment, was favored at the rate of five dollars per year by a majority of the respondents. Sixty-three and seven-tenths percent were in agreement on the five dollar fee and 25.0 percent indicated that no fee should be charged.

A study of the findings of this report revealed some relevant information concerning the role of the vocational agriculture instructor. As the two respondent groups were evaluated, the following conclusions were made:

(a) Young farmers should always be given the opportunity to participate in determining course content.

(b) Vocational agriculture instructors should teach approximately one-fourth of the young farmer classes.

(c) Vocational agriculture instructors should visit each young farmer at least once each year.

(d) Young farmers should be encouraged to attend at least three-fourths of the young farmer classes conducted.

(e) Enrollment fees should not exceed five dollars per member.

It is recommended that more detailed studies should be conducted on a national level to further evaluate and clarify the vocational agriculture instructor's role in young farmer education.

THE EFFECTIVENESS OF THE AMPLIFIED TELEPHONE AS AN EDUCATIONAL DELIVERY SYSTEM

Frye, David William Morley
Ph. D.

Kansas State University
1972

Problem and Procedure

A major purpose of this study was to evaluate the effectiveness of telelecture as an educational delivery system. The standard classroom was used as the model for comparison. Six classes, involving 378 students, were studied. Educational outcomes were assessed from two frames of reference: that of the instructor and that of the student. Special-ly constructed achievement tests, final examination grades, and final course grades served as instructor oriented criterion. Control measures included either a pre-test or previous college G. P. A. Student ratings of progress on personal objectives served as the criterion from the student's

frame of reference. Analysis of these data were used to test hypotheses about the relative efficacy of the two mediums (telelecture and standard classroom).

A second purpose was to discover personal predispositions which were related to student success under the two instructional methods. Information about learning preferences and personal attitudes was collected by administering a specially constructed questionnaire. High, average, and low achieving students were defined on the basis of instructor's criteria. Similar groups were established using student ratings of personal progress. Responses of these groups to the learning preference and personal attitude items were compared using the chi-square technique. Separate analyses were made of telenet and on-campus courses.

Conclusions

1. Educational success defined from the instructor's point of view was relatively independent of success defined from the student's point of view. Among on-campus students, no relationship was found between success ratings made from the two frames of reference, while in the telenet sample, a low positive relationship was found.

2. Telelecture and standard classroom instruction were equally effective as educational delivery systems when criteria were measured from the instructor's frame of reference. Of the 13 comparisons, 11 showed no difference, 1 favored standard classroom instruction, and 1 favored telelecture.

3. When success was measured from the student's frame of reference, telelecture instruction was at least as effective as on-campus instruction. In five of the six classes, no significant differences were found on student ratings of progress on personal objectives. In the remaining class, significantly higher ratings were provided by students who experienced the telelecture method of instruction.

4. Students who profited most from the telelecture system differed in personal predispositions from those who profited least. When success was judged from the instructor's frame of reference, students who profited most exhibited high personal independence, motivation, and "openness" to the learning situation. When success was defined from the student's frame of reference those who gained most exhibited confidence in themselves, a sense of self-responsibility, and high motivation.

5. Students who profited most from the traditional classroom system differed in their learning preferences and attitudinal predispositions from those who profited least. When progress was judged from the instructor's frame of reference, students who profited most from on-campus instruction expressed high motivation, a sense of personal responsibility, but considerable

dependency on others for assistance and support. When progress on personal objectives was the criterion, students with the highest ratings were less secure in the learning situation, more conservative in their choice of learning settings, and more dependent on instructional support than students with lower ratings.

Students who profited most from telenet instruction contrasted markedly with students who profited most from the standard classroom method. Both groups appeared well motivated and responsible. In addition, telenet students displayed independence, self assurance, and flexibility. Successful on-campus students, on the other hand, were more dependent, insecure, and "traditional" (conservative) with respect to education preferences.

Implications

Generalizations were restricted to the particular courses, instructors, students, and criteria employed in this investigation. Implications were discussed regarding the definition of educational success, the further application of telelecture, and the matching of student characteristics with learning opportunities.

AN EVALUATION OF PACKAGE RESULT DEMONSTRATIONS IN VILLAGES WITH AND WITHOUT FIELD DEMONSTRATIONS IN MINNA DIVISION, NIGERIA

Gana, Francis Salawu
M. S.

Kansas State University
1974

The main purpose of this study was to compare the adoption of recommended practices by farmers in villages with and without field demonstrations in Minna Division, Nigeria.

Two questionnaires were mailed to obtain information from 220 farmers; half from villages with, and the other half from villages without field demonstrations. These farmers were randomly selected by the Minna Divisional Agricultural Officer, who conducted the interview. Extension workers were sent a questionnaire related to the actual conduct of field demonstrations.

Chi-square was used for an analysis of the data. A significance for chi-square was established at the .05 level. When there was significance at the .01 level, it was reported.

Hausa and Gwari were commonly spoken by farmers. All except one-fourth of the farmers said they had observed result demonstrations in villages with field demonstrations. More than 51 percent of the farmers said they had used fertilizers. Only one out of ten (11.0 percent) of the farmers said agricultural supplies were always available in agents' shops.

Extension workers reported the following: nearly nine out of ten said demonstrators were selected from farmers who attended council meetings. One-half said demonstrators were selected by leaders in the villages. Approximately eight out of ten extension workers said planning of demonstrations were made with farmers. One-half said demonstrations were planned together with demonstrators.

All extension workers said they were present at planting time and for the first fertilizer application on the field demonstrations. Nearly nine out of ten extension workers were present when thinning and first weeding took place. About two-thirds of the extension workers said they visited the plots when the second fertilizer application was made.

A limiting factor reported by about three-fourths of the extension workers was that they lacked access to the demonstration plots they supervised, and that there were too many plots which they could not cope with. Nearly six out of ten extension workers reported a somewhat limiting factor was that of farmers being somewhat uncooperative. One-half noted that a delay in receipt of demonstration material was a hindrance.

Almost all extension workers reported that farmers adopted the recommended practices because the practices were profitable. Nearly six out of ten extension workers believed farmers cooperated with the hope of increasing their production. Approximately nine out of ten extension workers believe that non-adopters rejected the recommended practices because they did not participate in extension activities.

Sixty-one percent of the extension workers felt they could supervise three demonstration plots effectively. About nine out of ten extension workers said regular farmers, together with the demonstrators and themselves, were present when demonstration plots were harvested. Nearly nine out of ten said the results of demonstration plots were made available to farmers in the field after harvest. Eight out of ten said results of demonstration plots were announced to farmers in council meetings, and one-half said results were made available to farmers in neighboring villages.

Adopters of approved recommended practices were found to be younger than non-adopters. Non-adopters said they had no confidence in the demonstrations.

The results of the study appeared to support the following conclusions:

1. Improved recommended practices need to be made simpler to enable the farmers to follow the instructions more easily.
2. Farmers' literacy in Hausa and English languages is badly needed.
3. Extension workers should be provided with essential facilities to enhance their effective supervision of demonstration plots.
4. There should be ready availability of essential inputs in agents' shops.
5. Future study is necessary to determine whether the improved recommended practices used by adopters and non-adopters were applied correctly.
6. Extension workers can adequately conduct only three to four demonstrations per season.

THE DEVELOPMENT OF BASIC AGRICULTURAL MECHANICS SKILLS BY BUILDING A SMALL PROJECT

Gish, Gary Dean
M. S.

Kansas State University
1969

The purpose of this study was to compare the small project method and the drill method of instruction for agricultural mechanics skill development. The primary objective was to determine the difference in the improvement of skill development by implementing two methods of instruction, the project method and the drill method.

The students in the 1967-68 Vocational Agriculture One class, Washington High School, were used in the study. The students were given an opportunity to select one of two small projects (one in arc welding or one in farm carpentry). The selection of the project placed them into one

of two groups, the arc welding project, carpentry drill group, or the arc welding drill, carpentry project group.

The same lesson plans were taught to each group. The groups were allowed fifteen hours in which to become proficient in the performance of the selected arc welding and carpentry skills.

The students in each group were given a pencil and paper and performance pre-tests and post-tests in arc welding and farm carpentry. The data gathered from the pre-tests and post-tests were used in determining the amount of improvement for each group.

Three criterion factors were used to determine the equality of the two groups. The criterion factors were: (1) Intelligence Quotient, (2) The students' grade point average at the end of the first semester of the 1967-68 school year, and (3) The students' scores on the written pre-test on arc welding and farm carpentry. After reviewing the data for the three criterion factors the writer assumed that the differences between the two groups were insufficient to hinder the results of the study.

The results from the pre-tests and post-tests indicated no relationship between Intelligence Quotients, and mechanical ability. The individual who had the lowest Intelligence Quotient scored equal to or higher than did the individual who had the highest Intelligence Quotient.

The data found showed that neither the arc welding project, carpentry drill group nor the arc welding drill, carpentry project group excelled in all of the skills tested. The results of the pre-tests and post-tests showed that the arc welding project group had greater improvement in two skills tested; selecting amperage, and running a stringer bead. The arc welding drill group exceeded the arc welding project group in two skills: making a butt weld, and making a lap weld. The two groups made equal improvement on the other arc welding skills.

The data showed that the carpentry drill group exceeded the carpentry project group in two skills; sawing lumber square, and sawing lumber at an angle. The project group exceeded the drill group on tool selection, and measuring and marking lumber. The remaining two skills, gluing and nailing lumber, were accomplished equally well by the two groups.

The hypothesis of the study that the improvement of the project group would exceed the improvement of the drill group was not supported by the 1967-68 Vocational Agriculture One class in the Washington High School.

After reviewing the data gathered from the study the writer concluded, that either the small project method or the drill method of instruction for agricultural mechanics skill development was an acceptable method for the

1967-68 Vocational Agriculture One class in the Washington High School since there were no differences in the improvement of the performance of the members of the two groups.

A STUDY TO DETERMINE THE FACTORS WHICH INFLUENCED
THE PRODUCTION AGRICULTURE EXPERIENCES FOR
STUDENTS WITH LIMITED RESOURCES

Goos, William Jerry
M. S.

Kansas State University
1974

Purpose

The purpose of this study was to determine the factors which influenced the production agriculture experiences of students with limited resources. To accomplish this goal, the writer prepared a research instrument to be completed by twenty selected Vocational Agriculture teachers in Kansas who reported having successful production agriculture experience programs.

Method

The questionnaire consisted of two pages of questions which were designed to measure information concerning the instructor, community, successful programs, and student limitations. Eighteen usable responses were returned and tabulated in percentages for analysis.

Findings

No apparent relationship was determined for the businesses involvement or support and the occurrence of production agriculture experience programs. Since no department reported local business support, it can be assumed that business establishments in the community were not involved in providing production agriculture experiences.

No significant relationship was determined as to the school facilities and the occurrence of production agriculture experience programs. Within the parameters of the study, schools with few facilities had programs and investments as large or larger than those schools with more facilities available. A school's limitations in extending the production agriculture experience programs was not considered the most significant limiting

factor since some schools circumvented this problem through the formation of FFA Coops which acted as the agent to rent land and furnish the capital. Forty-four percent of the experience programs involved school farm operations which included both the school property and the FFA Coop rented facilities. Livestock programs involved 30 percent of the reported production agriculture experience programs.

Student limitations reflected 52.2 percent of the group having neither land nor capital with which to engage in a personally funded production agriculture work experience program.

A relationship of teacher tenure and teaching experience of ten years or less appeared to be the most frequent factor in successful production agriculture experience programs. Commensurate with this, it was noted that teachers with educational achievements of the M. S. degree represented the largest category of teachers engaged in successful production agriculture experience programs.

An analysis of this study indicated that the most significant factor in the school's providing production agriculture experience programs depend on the abilities of the teacher in acquiring the resources either from the school or from other sources.

THE RELATIONSHIP BETWEEN A DEVELOPING CAREER EDUCATION PROGRAM AND THE CAREER MATURITY OF SECONDARY SCHOOL STUDENTS

Greene, Stanley Dee
Ph. D.

Kansas State University
1973

The purpose of this study was to determine if exposure to the concepts of career education increases the career maturity and the career competencies of selected junior and senior high schools, grades seven through twelve in Santa Barbara, California.

Methods and Procedures

Fifty students from each grade level (7-12) were randomly selected from both the experimental and control schools. A total of 531 students were pretested in September of 1972 and posttested in May of 1973. Crites' Career Maturity Inventory Attitude Scale, a standardized instrument, and

the Santa Barbara Occupation Information Survey (SBOIS), a district-constructed instrument, were used to measure the maturity of career attitudes. The CMI Career Competency Tests were used to test for Career Competencies in five areas.

The treatment in this study was an experimental career education program and consisted of five components: 1) teacher in-service, 2) junior high school curriculum, 3) senior high school curriculum, 4) guidance and counseling, and 5) placement. Students in the experimental groups were exposed to intensive career guidance and were enrolled in classes in which the teachers modified their presentation of subject matter to include career-relevant material. These teachers also received continuous in-service training in career education. The students in the control groups were not exposed to intensive career guidance or enrolled in classes with career relevant emphasis. The teacher involved with the control groups did not receive in-service training in career education.

A pretest-posttest design was employed with program, sex, and grade serving as main factors in a factorial experiment utilizing unequal sample sizes.

A three-way analysis of variance was applied to pretest data to determine the similarity between the control and experiment before the experimental program was introduced. Because several important differences were found, the seven hypotheses of the study were tested by a three-way analysis of variance of the gain scores (posttest minus pretest).

Results

All seven of the hypotheses regarding program effects were rejected. The program effects were quite large. On all three measures the mean difference ranged from .46 to .97 of a standard deviation of the gain scores. Only one sex difference was found where the male mean was higher than females on planning ability. Only one grade difference was found where Grade 10 was higher on problem solving ability than Grades 11 and 12. Of the twenty-eight interactions which were tested only four were significant and each of these were involved with program effects.

Conclusions

The experimental career education program appeared to effectively increase the maturity of career attitudes. The school district designed instrument was relatively stronger in measuring career attitudes than the standardized instrument.

The career education program also appeared effective in fostering gains on career competencies as measured by the CMI Career Competency Tests. Relative gains were higher for competencies involving logical or

or rational thinking than for competencies requiring analysis of oneself.

In general, the career education program appeared to be equally effective for both sexes and for all six grade levels.

Recommendations

The Santa Barbara Occupation Interest Survey (SBOIS) instrument should be refined through reliability, validity, and item analysis studies.

Until standardized testing devices become available it is recommended that school districts design their own instruments to measure career education concepts.

Further research should be directed to the question of improving established career education programs.

A FOLLOW-UP STUDY OF RILEY COUNTY HIGH SCHOOL VOCATIONAL AGRICULTURE GRADUATES 1960 - 1971

Gross, William Ralph
M. S.

Kansas State University
1973

The purpose of this report was to determine the occupational status of the Vocational Agriculture graduates of Riley County High School, and to provide data which would be of assistance in determining the value of Vocational Agriculture program to the graduates on the job and in the home. An additional purpose was to determine what other areas of training the graduates perceived as needed.

Information was obtained by sending a questionnaire to each graduate with three or more years of Vocational Agriculture. Questionnaires were returned by forty-eight of the eighty-five graduates. The major findings indicated that thirty-five of the forty-eight graduates (75.2 percent) were engaged in farming, part-time farming, or agriculture-related occupations, and thirteen or 24.2 percent were in non-agricultural occupations.

It was found that graduates in farming, part-time farming, and agriculture-related occupations placed a higher value on the Vocational agriculture areas of instruction for use on the job than graduates in non-agriculture

jobs, with the exception of social security. When the same areas of instruction were evaluated according to use in the home, graduates in non-agriculture jobs valued instruction in the use of power tools of greater importance than those engaged in farming.

It was found that twenty-five of the forty-eight (52 percent) graduates surveyed continued their education beyond high school. Nineteen of these twenty-five (96 percent) either completed or are presently pursuing their educational objectives.

It was found that of the former students engaged in farming or agriculture-related areas, 64 percent were married while 76.9 percent of those in non-agriculture related areas were married. It was found that 50 percent of those engaged in full-time farming had an annual salary of \$8,000 or more, while only 30 percent of those in non-agriculture areas were over \$8,000.

In response to what part of Vocational Agriculture courses were most helpful, it was found that Agricultural Mechanics was rated most helpful with FFA and record books following closely. FFA was rated as the most important extra-curricular activity with band as least important.

Based upon the outcome of the study, the writer made the following recommendations.

1. Continued emphasis should be placed upon the Vocational Agriculture subjects that were taught and which meet the needs of those going into farming and agriculture-related occupations.

2. Those subject areas of instruction which were found to be of greater value on the job and in the home should be emphasized more.

3. Due to a large percentage of students not continuing education beyond high school, a greater emphasis should be placed upon vocational courses in Riley County High School.

THE RELATIONSHIP BETWEEN ACT COMPOSITE STANDARD
SCORES AND FIRST SEMESTER G. P. A. OF ENTERING
FRESHMEN AT KANSAS TECHNICAL INSTITUTE

Guard, Harrell, Jr.
M.S.

Kansas State University
1971

The purpose of this study was to determine the relationship between the composite standard scores of the ACT tests (academic ability indicators) and academic achievement (first semester G. P. A.) of freshmen entering Kansas Technical Institute. High attrition (drop-out) rates indicated the need for a predictive instrument for counseling and placing students.

A survey of previous research revealed that although numerous studies of this type have been done, no investigations involved students enrolled in engineering technology.

The Pearson correlation method, used to determine the relationship between indicated ability and achievement, was statistically significant but of limited value in constructing a predictive instrument since less than twenty-five percent of the variance in achievement could be predicted by the chosen ability indicator (ACT scores).

Based on this limited study, the author then presented a suggestion for further study--the identification of the factors which could predict the other seventy-five percent of the variance in achievement by identifying the characteristics common to graduates but not common to the drop-outs.

PREDICTION OF ACADEMIC SUCCESS FOR
ENGINEERING TECHNOLOGY STUDENTS

Guard, Harrell, Jr.
Ph. D.

Kansas State University
1973

This study attempted to determine the relationship between indicators of academic aptitude (ACT standard math scores and ACT standard English scores) and preparation (number of units of high school math and number of units of high school physical science) and academic success (graduation) for

students enrolled in engineering technology programs. High drop-out rates indicated the need for a predictive instrument in counseling prospective students.

A survey of previous research provided guidelines for selection of predictor variables and for tests of the homogeneity of population. Related studies in other academic disciplines were examined for the possible effects of relevance of subject matter and stress resulting from the academic demands of a highly technical curriculum.

The sample selected was drawn from students who initially enrolled at Kansas Technical Institute (an engineering technology school at Salina, Kansas) from 1966 through 1970. All students who enrolled during this time period were included in the sample except those (13%) who left school for reasons other than graduation or academic dismissal. Kansas Technical Institute students were selected as a representative sample of students enrolled in Engineering Council for Professional Development (E. C. P. D.) accredited programs since the academic programs at the institute were based on E. C. P. D. standards and the drop-out rate was comparable to other E. C. P. D. programs.

The research design included a series of t-tests to establish whether graduates and academic drop-outs evolved from a common population, a correlation study to test the significance of sociological background on academic success, and a discriminant analysis to measure the combined effect of the predictor variables and to construct a series of predictive instruments for counseling prospective students.

Findings resulting from the study were statistically significant but pragmatically of little value for predictive utilization since only twelve percent of the variance in student success was accounted for by the predictors.

The positive implications of this study were the identification of areas for further research. The collection of rank-in-class (R. I. C.) data for inclusion as a predictor, analyzing the curriculum for relevance of subject matter to the potential job market, and measuring the effects of academic stress on student success were suggested as contributing factors to high drop-out rates among engineering technology students.

CURRICULUM GUIDE FOR THE KWADASO AGRICULTURAL
COLLEGE, GHANA, BASED ON OPINION-SURVEY OF
SPECIFIED ASPECTS OF THE CURRICULUM

Gyamfi, Kwame
M. S.

Kansas State University
1971

The purpose of this study was to survey the opinions held by a group of Agricultural Assistants and their supervising Senior Officers, regarding specified aspects of Kwadaso Agricultural College training programs; and to apply the findings of the study to suggest a curriculum guide for the College to be presented to the Chief Agricultural Training Officer.

The Kwadaso Agricultural College was responsible for the training of Agricultural Assistants for posts in the Units and Divisions of the Ghana Ministry of Agriculture, and related institutions. These Agricultural Assistants occupied a middle-level manpower link between the university trained agriculturists (so-called agricultural graduates) and the farmers.

As a background for the dual exercise, this investigator reviewed literature selected to concern five areas of curriculum development; 1) what the curriculum is, 2) confusion in curriculum development, 3) the evolution of the curriculum idea, 4) some curriculum theorists and their contributions, and 4) patterns of curriculum development.

The aspects of the Kwadaso training program surveyed were:

- 1) the extent to which the Agricultural Assistants considered the subjects they studied at Kwadaso valuable to the work assigned to them.
- 2) the extent to which the Agricultural Assistants considered the quantity of material covered in the subjects adequate for the work assigned to them.
- 3) the extent to which the Agricultural Assistants found each subject interesting.
- 4) the extent to which the Agricultural Assistants found each subject difficult.
- 5) the extent to which the Agricultural Assistants considered the training they received at Kwadaso adequate in the areas of: basic agricultural knowledge or skills, supervision of labor, social adjustment, and the ability to communicate ideas to others.

6) the extent to which the supervising Senior Officers considered the Kwadaso subjects important to the work which they had assigned to their charges -- the Agricultural Assistants.

7) the performance of the Agricultural Assistants, as rated by their supervisors, in the areas of: basic agricultural knowledge, supervision of labor, social adjustment, ability to communicate, and readiness to take on responsibility.

The study was limited to 102 Agricultural Assistants and 28 Senior Officers selected from the eight regions of Ghana.

The gathering of the data was by means of a questionnaire which was prepared by this investigator and mailed from the Kansas State University Campus Post Office to the Chief Agricultural Training Officer at Accra, Ghana, for distribution to the respondents.

The findings of the study appeared to support the following conclusions:

1) There was more than average agreement between the opinions of the Agricultural Assistants and those held by the supervising Senior Officers regarding the relevant importance of the subjects taught at the Kwadaso Agricultural College.

2) The subjects which the Agricultural Assistants found most interesting were also the most valuable to their work and least difficult.

These findings implied that work-related courses were interesting and less difficult to learn. That being the case, it was important for the curriculum developers at Kwadaso to know the job specifications of the Agricultural Assistants and make these the centres of the courses.

Drawing from the findings of the survey, and buttressed by the philosophical considerations which gave birth to the Kwadaso Agricultural College, a curriculum guide was prepared. The guide emphasized the need for clear, measurable educational objectives and the gathering of occupational information; the dynamics of curriculum implementation and the significance of curriculum evaluation.

THE EFFECTS OF SELECTED CHARACTERISTICS OF FARM
OPERATORS ON THEIR RESPONSIVENESS TO A FARM
MANAGEMENT EDUCATION PROGRAM: THE CASE
OF KANSAS EXTENSION FARM MANAGEMENT
ASSOCIATION NUMBER I

Gyamfi, Kwame
Ph. D.

Kansas State University
1974

The Kansas Extension Farm Management Association operated under the parent institution of the Cooperative Extension Service of the Kansas State University, as part of the educational program of the Kansas County Extension Councils.

As a continuing adult education program, it was necessary to investigate the performance of the recipients and to determine if other factors, as well as the educational program, affected such performance.

A review of research and literature relating to adult farm success helped to identify three purposes of this study:

- 1) To search the literature and study the economic returns of education.
- 2) To examine the farm incomes of sampled farm operators who enrolled in an educational program provided by the Kansas Extension Farm Management Number I, and
- 3) To determine the effects of age of farm operator, farm size, tenure status, level of formal schooling, and length of exposure to the educational program on farm success, as measured by farm income.

The population consisted of 597 farm operators who were members of Farm Management Association Number I. This Association covered an 18-county area in North-Central Kansas. A sample of one hundred and eleven farm operators with five or more years of membership in the program was drawn from the population and their farm records were made available for the study.

The independent variables in the study were length of membership in the Association, age of farm operator, level of formal education attained, farm size, and tenure status. The dependent variable was farm income, measured in the gross, net, and return to labor and management. The analysis of variance technique was used to determine the effects of

the independent variables, while the chi-square was used to describe the sample population vis-a-vis the general farm population of the geographic area, as defined by the Agricultural census of 1964.

In comparison with the average farmer in the area, the farm operator in the sample was shown to be more likely 1) part-owner in tenure, 2) longer schooled in formal education, 3) middle aged in years, and 4) in the top three economic classes in gross farm income in the entire state.

The hypothesis was stated in the null form: that there was no effect on farm income due to age of farm operator, level of formal education, tenure, status, farm size, and length of membership in the Association. Only one independent variable -- farm size -- was rejected at the .05 level. Performance curves were drawn -- farm income over length of membership in the Association -- to demonstrate the effects of diminishing marginal return. The data paths failed to show this. Moreover, since the data again failed to demonstrate the effect on farm income from length of membership in the Association, the significance of the performance curves was negligible.

It was recommended that other studies using other methods of sampling and/or control groups would be valuable in determining the investment effects of continuing adult education in agriculture as well as the effects of socio-economic characteristics on farm success.

AN ASSESSMENT OF THE VOCATIONAL BUSINESS EDUCATION
CURRICULUM BY RECENT VOCATIONAL BUSINESS
EDUCATION GRADUATES FROM SOUTHERN
UNIVERSITY, 1970-1973

Harris, Rosa Alexander
Ph. D.

Kansas State University
1975

Purpose

The purpose of the study was to determine the extent to which graduates of the Vocational Business Education Curriculum of Southern University, Baton Rouge, Louisiana, are prepared to function effectively and efficiently in positions as business teachers, secretaries, clerk-typists, accountants and other business related positions. The study sought data in regard to

the attitude of graduates toward their professional educational preparation, specialized business educational preparation and curriculum changes which graduates felt would be of benefit to future graduates of the curriculum.

Method and Sources

A review of the literature of business education curricula offered in a representative number of colleges and universities in the United States was conducted. This review provided the bases for much of the design of the study. A questionnaire was developed, a pilot study conducted and the data gathering instrument was subsequently mailed to the two hundred and seventy-eight graduates identified for the years 1970-1973. One hundred and fifty-six usable questionnaires were returned which constituted slightly more than a fifty-six percent return.

The frequency of responses to items on the questionnaire were converted to percentages to determine the extent to which graduates felt the curriculum had prepared them for the world of work.

Of those responding to the study: Thirty-five were business teachers; twenty-eight secretaries; fourteen clerk-typists, none were accountants; thirty-four were unemployed and forty-five were employed in other positions.

Summary of Findings

The career goal of an overwhelming majority of all respondents was to become a business teacher. A majority of business teachers and secretaries were satisfied with the professional educational sequence of courses, while the clerk-typists were generally dissatisfied with the professional education courses. Student teaching was the most useful course to business teachers. Cooperative Office Education was most useful to secretaries and clerk-typists. Suggested additions in the professional area in rank order were: Methods of teaching the culturally deprived, motivational techniques, evaluation procedures and more adolescent psychology.

Business teachers and secretaries were generally satisfied with the specialized courses, although clerk-typists were found to be less satisfied with these courses. Typewriting was cited as the most useful course by all three groups. Graduates suggested the following courses or emphasis in order of importance: Secretarial practices and procedures, increased typewriting speed requirements, increased shorthand and transcription requirements, additional training on office machines, business mathematics, Business English, and more accounting.

Business teachers were seeking advanced degrees, over fifty percent, while secretaries, clerk-typists, unemployed and those employed in positions

alien to their specialization were less inclined to seek advanced degrees.

Business teachers indicated that they were opposed to work experience rather than student teaching. They were also opposed to specialization. Secretaries and clerk-typists were amenable to work experience. Secretaries also indicated that students should become specialized. In contrast, clerk-typists were not receptive to specialization in that they felt it would restrict their employability.

Responses of unemployed graduates specified that lack of openings was the major reason for their plight, as well as those graduates employed in other nonbusiness positions. Those graduated employed in other areas held positions as: Teachers of mathematics, special education, elementary, English, reading and social studies; company representatives; social workers; bank tellers; sales clerks; librarians and library technicians.

A COMPARISON IN TERMS OF ANNUAL SALARY OF VOCATIONAL GRADUATES AND NON-COMPLETERS WHO OBTAINED EMPLOYMENT RELATED TO THEIR TRAINING

Harris, Thomas O.
Ph. D.

Kansas State University
1975

The purpose of this study was to determine the disposition of the question, "Do students who complete a vocational education program receive significantly higher starting salaries than those students who terminate the program before completion?" Data were obtained from the Kansas Manpower Utilization System for Training (K-MUST) program.

Hypotheses

The following hypotheses were tested: (1) there is no significant difference between the annual beginning salaries received by vocational graduates who are working in the occupation for which they were trained and vocational program non-completers who are working in an occupation related to their training, (2) the location of the school from which the vocational student terminates has no relationship to beginning salary, (3) the age of the student who terminates a vocational program has no relationship to beginning salary, (4) the sex of the student who terminates a vocational program has no relationship to beginning salary, (5) the race of the student who terminates a vocational program has no relationship to

beginning salary, and (6) the program from which the student terminates has no relationship to beginning salary.

Procedure

The population in this study consisted of all the students enrolled in the vocational and technical education programs in the fourteen area vocational technical schools of Kansas. The sample consisted of those students, except those from Central Kansas Area Vocational Technical School on whom no data were reported, who terminated their programs at the end of the regular school term or before and secured employment in an occupation related to their training.

The data were collected as a normal function of the Kansas Student Accounting System under the auspices of the Kansas Division of Vocational Education and K-MUST. Exceptions to the data processing involved a manual search of the data deck to determine which students had terminated and were working full time in an occupation related to their training. A least squares analysis of variance was used throughout to examine the hypotheses.

Findings and Conclusions

The computerized analysis indicated that there was no significant difference between the beginning starting salaries of program completers and non-completers. There was, however, a significant difference within age and sex groups. The race of the students and the programs in which they had been enrolled had no significant relationship to starting salaries. There was a difference within the race groups. However, the analysis produced results indicating that the location of the school, the age, and the sex of the terminators had a significant bearing upon the initial starting salary, the differences being primarily within groups.

Recommendations

It is recommended that studies of a similar nature be conducted on a national scale to attempt to determine if the same variables have the same effect upon beginning salary.

It is recommended that, if and when data becomes available, a similar study be done covering several years' terminators.

It is recommended that a similar study be done to study the salaries of the sample five and ten years from this date.

It is recommended that the vocational school or program calendar be set up on an individual student basis rather than a group basis.

It is recommended that students be allowed to terminate vocational programs when it is determined that they have completed the basic requirements for the course, regardless of date.

It is recommended that area vocational technical schools either develop or purchase competency examinations for the purpose of determining the competence of vocational students at various stages in the various programs.

It is recommended that studies be conducted to determine the entry-level skill and knowledge requirements of occupations for which vocational education attempts to teach.

AN INVESTIGATION OF ADULT COUNSELING AND GUIDANCE
PROGRAMS IN THE NINETEEN PUBLIC COMMUNITY
JUNIOR COLLEGES IN THE STATE OF KANSAS

Hartwig, John Edward
Ph. D.

Kansas State University
1973

Statement of the Problem

This study was undertaken to investigate the role and scope of adult counseling and guidance programs in the nineteen public community junior colleges in Kansas.

The study was concerned with providing data which may lead to a series of recommendations for the Kansas State Department of Education concerning specific programs and practices which would help establish guidelines relative to adult counseling and guidance programs in the community junior colleges. The study dealt with the following areas: (1) priorities, (2) strengths and weaknesses, (3) problems in establishment of programs, (4) reasons adults seek counseling services, (5) background of adult counselors and administrators, and (6) time spent with adult counseling programs.

Methods and Procedures

Adult counselors and administrators of adult counseling programs were surveyed. The data used in this investigation were gathered by an instrument developed and validated by the Delphi Technique.

Two statistical procedures were used in analyzing the data: (1) rankings of priorities, strengths, weaknesses, and rankings of reasons adults seek counseling services were categorized under common cluster areas with frequency distributions and percentages reported for both groups, and (2) chi-square test for goodness of fit was used to determine if there were any significant differences between the perceptions of the two groups on each rated item contained in categories of priorities, strengths and weaknesses, problems, and reasons adults seek counseling services. The .05 level of significance was used in testing for significant differences. The responses relative to percentage of time spent with adult guidance services were analyzed and an average time factor reported for each group.

Findings

Counselors listed and ranked the following as their three main priorities of adult counseling programs: (1) goal development, (2) assessment programs, and (3) continuing education programs. Administrators listed and ranked the following as their three main priorities of adult counseling programs: (1) educational information and planning, (2) career information, and (3) adequate counseling staff.

The two groups differed significantly on the following rated priority items: (1) long range goals, (2) assessment programs, (3) adjustment of adult learner, (4) retention of students, (5) integration of occupational, educational, and personal information into student's life style, and (6) recruitment of students.

Both groups listed Adult Basic Education and high school completion guidance services as their first major strong point of adult counseling services. Counselors listed vocational information and communication between counselors, staff, and community as their second and third respective strong points. Administrators listed educational information and vocational planning as respective second and third strong points.

The major weak points listed by counselors were: (1) limited counseling services, (2) insufficient time, (3) inadequate adult counseling background, (4) inadequate facilities and materials, and (5) lack of follow-up studies.

Administrators listed weak points of adult counseling services as: (1) insufficient time, (2) limited counseling services, and (3) lack of community involvement.

The two groups differed significantly on the following rated components involving the degree of strength or weakness of adult counseling programs: (1) budget, (2) community development, (3) adult counseling techniques, (4) adequate communication, (5) understanding program goals, (6) administrative support, and (7) adequate utilization of counseling services.

The two groups differed significantly on the following rated problem areas: (1) budgeting limitations, (2) lack of support for program from faculty, administration, community, and (3) lack of expertise in adult counseling.

Both groups held similar perceptions relative to the reasons adults seek counseling and guidance services. Counselors ranked vocational, educational, and personal-social needs as their three main reasons. Administrators concurred on these reasons but also added inadequate self concept as a major reason.

The two groups differed significantly on the following rated reasons: (1) financial problems, (2) reasons other than employment, (3) career placement, and (4) completion of Adult Basic Education and high school completion programs.

Both groups appeared to have professional backgrounds and career experiences to establish adult counseling and guidance programs.

The trend for time spent on adult guidance programs indicated that both groups spent ten to twenty percent of their time developing this area.

A STUDY TO DEVELOP AND TEST A MATHEMATICAL MODEL FOR PREDICTING EMPLOYMENT BY OCCUPATION FOR LOCAL COMMUNITIES

Hartzler, F. E.
Ph. D.

Kansas State University
1972

The vocational programs are required by law to provide training which is realistic in terms of the opportunity for employment in addition to training which is practical and sufficient for employment. The estimation of manpower needs has been a recurring problem of these programs.

A review of the research relating to manpower predictions revealed that while considerable effort has been expended in manpower planning and forecasting very little theoretical work has been done with planning and forecasting of manpower needs for communities of less than 100,000 population. The review also revealed that most of the work that had been done was based on time series analysis and projections.

The theoretical framework was predominantly economic in its approach. This consisted of establishing an economic justification for education and acceptance of the doctrine that employment is a function of demand. Demand was defined as a combination of income and population.

Three null hypotheses were postulated from this base:

1. That there was no relationship between the number of the population and income (demand) and the number employed in an occupation.
2. That there was no relationship between the nature of the population (rural and urban) and the number employed in an occupation.
3. That there was no continuing relationship between the number of the population or income that would provide a base for ten year predictions.

The primary statistical tools were multiple regression and the Poisson distribution.

In testing the first hypothesis urban and rural population were important independent variables while income, as measured by median income, was only a chance variable. The first hypothesis was retained because of the definition of demand.

In testing the second hypothesis it was determined that the division of the population into rural and urban was significant for populations over 100,000 and the hypothesis was rejected for communities of this size. For communities of less than 100,000 the hypothesis was retained.

In testing the third hypothesis it was shown that a sufficient number of occupations could be predicted over a ten-year period of time, both backward and forward, that the hypothesis was rejected.

The population consisted of the labor force of the United States in 1950 and 1960. A sample of the fifty occupations with the largest employment for twenty-five states was used. Multiple regression equations based on urban and rural populations predicted employment by state and sex 94 times out of 100 over a ten-year period.

For standard metropolitan areas with populations between 100,000 and 139,000 multiple regression equations successfully predicted employment 23 out of 25 times.

Multiple regression equations were unsatisfactory for local communities of less than 100,000 population because of large constants or large standard errors of estimate; therefore, the Poisson distribution was tested as an equivalent for multiple regression for local communities of small population. Twenty-one of 25 predictions were successful and a

chi-square test of the predictions by Poisson and multiple regression and the actual employment revealed no difference based on replacement needs.

Therefore, the multiple regression model was accepted as a predictor of employment in those occupations for communities of over 100,000 population. Two variables, urban and rural population, were used. The Poisson distribution was accepted as a point estimator for communities under 100,000 using population as the independent variable.

SUMMER PROGRAMS OF VOCATIONAL AGRICULTURE IN KANSAS

Harzman, Leonard Alvin
M. S.

Kansas State University
1970

The objective of this study was to determine the amount of time that vocational agriculture teachers in Kansas devoted to the activities of the summer program.

Questionnaires were mailed to a random sample of 88 vocational agriculture teachers in Kansas, of which 61 were returned. Nine of the returned questionnaires were unusable, while one teacher did not have a summer program. The teachers were asked to give the number of days they used in each month for the summer program activities. The returns were grouped according to the years the teacher had taught.

The vocational agriculture teachers indicated that planning for the school year used the largest part of the summer program, which was 17 days or 30.4 percent of the time. The major portion of the planning was done in August followed by June. The most time consuming activities in planning were collecting samples, repairing shop equipment, and visiting prospective students. Other activities were reorganizing files, making new and reorganizing old lesson plans, securing needed equipment and supplies, and duplicating educational aids.

Supervising agricultural experiences ranked second among the activity areas, using 17 days or 22.3 percent of the summer program. Visiting agricultural programs of students was considered to use the largest amount of time in this activity area, and was done in June and August. Other activities that received time were arranging for fair exhibits, and organizing and supervising prevocational programs of prospective students.

Professional improvement used 10 days or 18.7 percent of the summer program time. The largest part of this activity occurred in August, followed by June. Attending the annual vocational agriculture teacher's conference in June used the largest amount of professional improvement time with 5.5 days. Keeping abreast of current developments was second with 3 days. Other activities were visiting other vocational agriculture departments, and attending crop or livestock schools.

The Future Farmers of America activity area used 6.5 days or 11.6 percent of the summer program time. The state leadership camp of 4 days used the major portion of the time devoted to the FFA, while the other days were used for officer and member meetings and a summer party.

The teachers also indicated that a significant amount of time was used in keeping records and reports. Of the 4.5 days used for records and reports, office routine required the largest amount of time, followed by inventory of equipment and supplies. The greatest amount of this activity was performed in August, with the remainder in June.

Other activity areas that teachers indicated used part of the summer program time were 3 days for school and community activities, 1 day for special summer activities, and 1 day for public relations.

Not considered as part of the working days were summer school and vacation activities. The teachers indicated these two activities often occurred at the same time. The responses showed that teachers preferred attending short courses, indicated by the 12 days used for summer school. The responses also implied the teachers who attended summer school did so during their vacation time. July was considered to be vacation month, although two of the teachers took part of their vacation during June and August. The teachers took a total of 30 days vacation during the summer.

The Kansas Vocational Agriculture Teachers believed the summer program was an integral part of vocational agriculture. The responses indicated that planning for the school year required the largest amount of time, followed by supervised agricultural experience, and professional improvement, respectively. The other activity areas were essential, but required less time to accomplish.

THE VIETNAM ERA VETERAN IN COLLEGE

Hebert, Joseph P., Jr.
Ph. D.

Kansas State University
1974

This study examined the problems of adjustment of the Vietnam-era veteran as a freshman student at Kansas State University, comparing his academic potential and performance, persistence in college, and attitude responses with that of his non-veteran classmate. The statistical techniques used were: The Kuder-Richardson Coefficient Alpha and factor analysis for developing and testing the attitude instrument; the Pearson correlation matrix for identifying relationships between academic and demographic data and attitude responses; analysis of variance with the Scheffe test for comparing the veteran with his non-veteran peer; and the analysis of covariance for controlling the differences in academic potential between the veteran and the non-veteran student.

Veterans from earlier periods earned the reputation of being over-achievers, equalling or exceeding the record of the non-veteran students. The situation is different with the Vietnam-era veteran. Changing political values and attitudes towards the military intensified his problems of adjustment. This study found that the veteran was significantly lower in academic potential, persistence in college, and the feeling of belonging on campus. With his weaker 'inclination towards college' he was more prone to drop out than the non-veteran. He needed assistance in making his transition to college, but he isolated himself from those campus activities and organizations that could help him.

DETERMINATION OF AGRICULTURAL MECHANICS SKILLS NEEDED BY VOCATIONAL AGRICULTURAL GRADUATES OF WAMEGO HIGH SCHOOL 1965 THROUGH 1969

Hollandsworth, Ronnie
M. S.

Kansas State University
1972

The purpose of this study was to identify the skills which were needed for planning a curriculum in agricultural mechanics for the Wamego High School. The problem was designed to provide information for the development of a curriculum which would include the skills which were considered

as essential for employment in the areas of farm and non-farm occupations. Twenty vocational agriculture graduates, who lived within a twenty-five mile radius of Wamego, served as the population for this study.

The questionnaire consisted of five areas. Each area was divided into units and the units contained a complete listing of vocational agriculture mechanics skills for secondary school students. The responses given to the items in the questionnaire by the vocational agriculture graduates were analyzed by assigning a weighted value to the responses given. These assigned ratings were: Very useful, 5 points; Useful, 3 points; and Little or No Use, 1 point. The sum for each was then divided by the number of responses. All skills which received a weighted average rating of 2.0 or above are to be considered as important in the development of a curriculum to prepare workers for employment in farm and related areas. The combined respondents indicated an overall rating of 2.0 or more for 27 of the 29 skill units. The farm group indicated the same 27 units as the total group were important and should be included in the curriculum. The non-farm group indicated 25 of the 29 units had a weighted average of 2.0 or more and should be included in an agricultural mechanics curriculum. The two units which the farm group rated as important, but the non-farm group did not, were "farmstead layout" and "water systems." The "heating" and "septic tank construction" units were not considered important by either group.

The units of tool conditioning, welding; cold metal, hot metal, carpentry, soldering and concrete were considered important in the farm shop area. The units of machinery adjustment, tractor maintenance, machinery and tractor service, motor repair and small motors were considered important in the farm power and machinery area. In the rural electrification area the units of selection of materials, procedures of wiring, installation, maintenance and motors were considered important. The units of drawing, farmstead layout, requirements of farm buildings and water systems were considered important in the area of farm buildings and conveniences. The units of elementary leveling procedures, farm drainage, irrigation, terracing, contour farming and pond-dam check were considered important in the area of soil and water management.

The following conclusions were reached after reviewing the results of the study:

1. The agricultural mechanics skills required for farming and for non-farm employment were very similar.
2. Since the agricultural mechanics skills which were required were very similar for both the farm and non-farm students, they could be taught to both groups in the same class.
3. The present skills being taught meet the demands of the graduates with the exception of Heating and Septic Tank Construction.

4. The units of Heating and Septic Tank Construction were the agricultural mechanics skills which should be omitted from the high school program of instruction.

5. The process of studying agricultural mechanics skills for employment in farm and agricultural related occupations was a satisfactory method and could be used to determine usefulness in other areas of vocational agriculture.

6. The Wamego vocational agriculture graduates were using the skills that were taught during 1965 through 1969 with the exception of Heating and Septic Tank Construction.

FACTORS WHICH AFFECTED THE CHOICE OF THE AGRICULTURAL EDUCATION MAJOR AT KANSAS STATE UNIVERSITY, 1973

Hung, Nguyen Thang
M. S.

Kansas State University
1973

The purpose of this study was to identify the factors which affected the choice of the Agricultural Education Curriculum. This report included a comparison of the factors in the selection of a college major as identified by Mr. Terry D. Fanning in 1969. The writer of this report tried to identify any changes which may have taken place from 1969 to 1973 in the selection of Agricultural Education as a college major.

The questionnaire used in this study contained 14 items and was designed to measure the student's background, factors which influenced the selection of the Agricultural Education major, suggestions for the choice of college majors, and the interest of students in international agriculture. All Agricultural Education majors hereafter referred to as Ag Ed majors were selected as the sample for this study. Sixty-six of 81 or 81 percent of Ag Ed majors who were enrolled at Kansas State University in the 1973 Fall semester indicated which factors affected them in the selection of their college major.

The results of this study indicated the changes which had taken place during the last five years from 1969 to 1973 in the selection of the Agricultural Education major. These changes were as follows:

1. Forty-two percent of the majors changed to the Agricultural Education curriculum since they enrolled in college compared to 44.3 percent in 1969.

2. Seventy percent of Ag Ed majors selected their college major when they were in the senior year of high school or later compared to 67 percent in 1969.

3. The years of the schooling of the mothers of Ag Ed major had decreased from 12.8 years in 1969 to 12.5 years in 1973 while the fathers' schooling had increased from 11.4 years to 11.7 years.

4. Seventy percent of Ag Ed majors lived on farms in 1973 compared to 93.3 percent in 1969.

5. The percentage of Ag Ed majors who had good opportunities to go back to farming from 63.3 percent in 1969 to 60.7 percent in 1973.

6. The percentage of relatives of Ag Ed majors who involved in Agribusiness had increased from 23.3 percent in 1969 to 27.3 percent in 1973.

7. The most influential persons in the selection of the Ag Ed majors were: vocational agriculture instructor, father, and mother in 1969 compared to vocational instructor, father, and others in 1973.

8. The most important factors in the selection of Agricultural Education as a college major in rank order were:

<u>Rank order</u>		<u>Factors</u>
<u>1969</u>	<u>1973</u>	
4	1	Have had background and experience in this area.
2	2	Greater chance for self-satisfaction from work.
1	3	This area best prepares me for future employment.
3	4	Like to work with people.
5	5	The field appears to be expanding.

9. Student suggestions on how to help others in the selection of a college major included:

1969

- Tell of job opportunities and fuller explanation of college curriculum.

- Have college representatives visit high school students.
- Encourage students to start thinking earlier in high school about college or occupations.
- Closer work with students by high school counselor.

1973

- More career education.
- Let students experience several majors.
- Explain why advanced study is needed, and job opportunities available.
- More and better high school counseling.
- Have college representatives visit high school students.

The last part of the report was devoted to determine the interest of the Ag Ed majors in various areas of Vocational Agriculture, important employment consideration, and their interest in international agriculture. Findings of the study indicated the following:

1. Ag Ed majors preferred Animal Science, Crops, and Soils Horticulture, and Ag. Mechanics in that order.
2. Vocational agriculture teaching, farm and ranch operation, agricultural extension were ranked as the most important employment considerations in the selection of the Ag Ed majors.
3. Forty-five percent of Ag Ed majors were interested in international agriculture. They preferred to work in this area because of involvement with people, service to undeveloped countries, and working conditions.

In 1973 there was a lower percentage of Ag Ed majors from farms. The Ag Ed majors indicated that more career education and more experiences should be offered in several occupations in high school. It was recommended that additional study be made to identify ways of providing these additional experiences.

A STUDY TO DETERMINE THE NUMBER OF ANNUAL
ENTRY OPPORTUNITIES IN PRODUCTION
AGRICULTURE FOR KANSAS

Hyle, Dwight E.
M. S.

Kansas State University
1973

The purpose of this study was to determine the number of annual entry opportunities in production agriculture for Kansas. The objective was to identify the number of farming opportunities by county and state with \$20,000 or more annual gross income.

To determine the number of entry opportunities in production agriculture a method was used which was developed by the Agricultural Economics Department of Oklahoma State University. The method used involved the determination of entry opportunities based upon the number of farm opportunities with \$20,000 or more gross income. Information needed to determine the entry opportunities was taken from the 1969 Census of Agriculture, Volume I, Part 21, Kansas, Sections 1 and 2. The number of farms with gross incomes of \$20,000 or more, and the number of units of \$20,000 gross income which would be possible from the consolidation of the remaining farm units with gross incomes of less than \$20,000 was entered into the formula along with the number of hired farm workers to give the total opportunities in production agriculture.

After the gross number of farming opportunities was obtained the following approach was used to calculate the number of farmers which would be needed annually. The number retiring annually was determined by taking the average age of the farmers and calculating the number above the average age which would retire by the age 65. Insurance tables were used to determine the number who die or become disabled. Retirement, death, and disability numbers were totaled to get the annual opportunities for production agriculture for each county and the state.

The results were recorded in tabular form. There were 24 counties with 40 or more annual opportunities to enter production agriculture. The six counties with the most opportunities were Finney (105.82), Ford (104.71), Barber (88.40), Butler (67.04), Pratt (59.89), and Reno (56.68). There were 16 counties which had fewer than 20 annual opportunities to enter production agriculture. The six counties with the lowest number of opportunities per year were Geary (8.78), Wyandotte (10.86), Wallace (13.64), Morton (14.58), Logan (14.80), and Elk (15.06). For Kansas the average county had 199.98 farms with gross annual incomes of \$20,000 or more, and 519.71 units would be available after consolidation of farms with less than \$20,000 gross income. There was an average of 82.37 hired farm

workers per county giving a total of 802.06 opportunities in production agriculture per county. Upon the determination of the annual entry opportunities it was found that 28.68 farmers retired and 3.91 died or became disabled each year providing a total of 32.95 annual entry opportunities per county.

There were 20,998 farms in Kansas which had gross incomes of \$20,000 or more with the possibility of 54,570.16 units of \$20,000 gross income after consolidation. Kansas had 8,649 hired farm workers for 150 days or more. This gave 84,217.16 employment opportunities in production agriculture for Kansas. There were 3,011.16 who retired annually and 410.79 who died or became disabled. Thus there would be 3,428.56 annual opportunities to enter production agriculture in Kansas due to retirement, death and disability.

The approach used to determine the number of annual production agriculture opportunities appeared to be workable. Many of the employment opportunities in counties with high average incomes will be for hired farm workers. Economical farm units of \$20,000 could be obtained through consolidation of existing units or by intensification of the farming program. Other alternatives to increase farm income could be by custom farm work or supplemental employment with off-farm jobs.

The author recommended that the findings of this study be made available for predicting the annual entry opportunities in production agriculture for Kansas. The author also recommended that this approach be used again in five years when the 1974 Census of Agriculture becomes available. It was recommended that vocational agriculture programs be provided for those entering production agriculture.

A STUDY OF RELATIONSHIPS BETWEEN DEMOGRAPHIC VARIABLES, PARENTAL INVOLVEMENT, PARENTAL ATTITUDES AND PARENTAL UNDERSTANDING OF CAREER EDUCATION

Jarmer, Gary Edward
Ph. D.

Kansas State University
1974

The Problem

Since 1917 Congress has expanded its interest in education which relates to occupations. Career education, as an emerging concept, has drawn

the interest of educators. The purpose of this study was to determine if significant relationships existed between parental involvement in K-6 school related activities, parental attitudes toward career education and parental understanding of career education as introduced at the K-6 levels. Also considered were significantly related demographic variables which affected parental involvement, attitudes and understanding of career education.

Procedures

The study was undertaken at Topeka, Kansas, within Unified School District 437. All parents or guardians of K-6 children were eligible for participation. Children delivered, and returned to school; two opinionnaires (one for each parent) prepared by the researcher. Of the families possible, 81.29 percent were represented by returned opinionnaires from one or both parents. Statistical procedures were chosen to determine reliability of the instrument and relationships referred to in the problem statements. Those procedures were: coefficient alpha, item analysis, least squares analysis of variance and pooled within cell correlation coefficients. For all statistical analysis, the .05 level of significance was used.

Findings

Findings indicate that sex, educational level and age of parents are significantly ($p < .05$) related to parental attitudes toward career education. Grade of oldest K-6 child, educational level and age of parents are significantly related to parental involvement in K-6 school related activities associated specifically with career education while children's attendance center, sex of parents, grade of oldest K-6 child are significantly related to parental involvement in K-6 school related activities not associated specifically with career education. Children's attendance center, sex of parents, number of K-6 children in family, grade of oldest K-6 child, educational level of parents and income level of family are significantly related to parental understanding of career education.

Correlation coefficients ranging from .08 to .55 were found to exist between parental involvement, parental attitudes and parental understanding of career education. All were significant at the .05 level.

Conclusions

Responding K-6 parents did demonstrate a positive attitude toward career education; however, female parents tended to the more positive than male parents. Also, parents reporting higher educational levels and younger ages were more positive in their attitude than parents with fewer years of education and parents who were older.

Parents whose oldest K-6 child was in the 5th grade were more involved in all listed K-6 school related activities. Parents whose occupation was agricultural in nature were more involved in K-6 school related activities associated specifically with career education than were parents with other occupational pursuits. Similarly, parents whose educational level was between 13 and 16 years of schooling were more involved than parents with more or less schooling. Attendance center of children seemed to make a difference in how involved parents were in K-6 school activities not associated specifically with career education. Female parents were also more involved in similar school activities than were their male counterparts.

The attendance center of children was instrumental in affecting parental understanding of career education. Females tended to better understand career education than male parents. There was evidence to indicate that parents with only one K-6 child better understood career education than did parents with more K-6 children. Parents whose oldest K-6 child was in the 3rd grade better understood career education than did parents whose oldest K-6 youngster was enrolled in other grades. More understanding of career education was also exemplified by parents with higher family incomes and greater levels of personal education.

PARTICIPATION RATES OF DISADVANTAGED AND HANDICAPPED GROUPS IN KANSAS AREA VOCATIONAL AND TECHNICAL SCHOOL PROGRAMS

Jones, David L.
Ph. D.

Kansas State University
1974

The purpose of this study was to examine the participation rates of academically disadvantaged groups, minority groups, economically disadvantaged groups and mentally or physically handicapped groups in vocational education which is being conducted at the fourteen area vocational and technical schools in Kansas.

Fifteen hypotheses were developed and tested using the Chi Square Test of Independence. The first five hypotheses involved the comparison of area school students and the general population being served by the area schools relative to proportions of five disadvantaged and handicapped groups. The second five hypotheses involved the comparison of different program types relative to the proportion of five disadvantaged and handicapped

groups enrolled. The last five hypotheses involved the comparison of programs of the same type relative to enrollment of five disadvantaged and handicapped groups.

All of the fifteen hypotheses were retained. First, there were significant differences between the proportion of disadvantaged and handicapped students in the area schools and the proportion of disadvantaged and handicapped persons in the areas being served by the area schools. When the percent of disadvantaged or handicapped enrolled in an area school is equal to or greater than the percent of disadvantaged or handicapped in the general population, then that area school is said to serve a proportionate share of the disadvantaged and handicapped. Of the fourteen area schools, one served more than a proportionate share of all five disadvantaged and handicapped groups; three served at least a proportionate share of all five disadvantaged and handicapped groups; two served at least a proportionate share of four of the five disadvantaged or handicapped groups; three served at least a proportionate share of three of the five disadvantaged and handicapped groups; two served at least a proportionate share of two of the five disadvantaged and handicapped groups; and one served a proportionate share of only one of the disadvantaged and handicapped groups. It also appears that the academically disadvantaged were being served proportionally by at least eleven of the area schools. All schools were proportionally serving minority groups. Nine of the schools were serving the economically disadvantaged proportionally as was the case for serving the mentally handicapped. The physically handicapped were being served proportionally by eight of the schools. Secondly, there were significant differences between different program types relative to the proportion of disadvantaged and handicapped groups enrolled. Finally, there were significant differences between the percent of disadvantaged and handicapped enrollment in a particular program and the percent of disadvantaged and handicapped enrollment in the same type of program at different area schools when all program types were considered.

It was concluded that many area schools enroll a representative number of disadvantaged and handicapped persons from the general population they are serving although inconsistencies exist relative to particular schools or particular disadvantaged or handicapped groups. In addition, it was concluded that the disadvantaged or handicapped groups tended to be clustered in certain program types although, again, inconsistencies were found from school to school.

THE EFFECTS OF CAREER EDUCATION INSERVICE CLASSES
ON THE CAREER MATURITY OF SIXTH, SEVENTH,
AND EIGHTH GRADE STUDENTS

Kerr, Sam W.
Ph. D.

Kansas State University
1974

This study was conducted to determine the change in career maturity and job recognition of sixth, seventh, and eighth grade students whose teachers participated in career education inservice classes. These classes were made available in the following four north central Kansas unified school districts: Unified School District #273, Unified School District #272, Unified School District #279, and Unified School District #299. Unified School District #289 served as the control group for the study. A total of fifteen 3-hour classes was conducted throughout the academic year 1972-1973 with over 85 percent of the teachers in grades K-8 attending these sessions regularly. The career education course was offered by Kansas State University and was conducted at a centrally located school for convenience to the teachers of all the participating districts.

These classes attempted to do several things for the teachers:

(1) Establish a philosophy of career education, (2) Present the background of and reasons for career education, (3) Explain the concept of career education, (4) Provide means of implementing the concept in the classroom, and (5) Help the teachers in actually implementing the concept in their classrooms.

The sixth, seventh, and eighth grade students from these four districts comprised the population in the experimental group. The sixth, seventh, and eighth grade students from Unified School District #289 comprised the population in the control group. The experimental group involved the 407 students who took the pretest in the fall of 1972 and the posttest in the spring of 1973. Likewise, the control group involved 166 students who took the pretest and posttest at the same time as the experimental group.

The Career Maturity Inventory developed by John O. Crites was chosen as a testing instrument. The Attitude Scale and the Competence Test, Part II, Knowing About Jobs were used. These sections were used as they were constructed to measure the progressive change which underlied emerging career awareness, exploration, and career decision making. Knowing About Jobs also measured diversity of knowledge of specific jobs.

The t-test for independent samples was used to determine if the career maturity and the knowledge of jobs of the population in the experimental group was significantly raised after their teachers had taken the career

education classes. The findings indicated the following results: (1) A significant difference was found in the mean gain score on the Attitude Scale with the experimental group gaining significantly more than the control group ($t = -2.721$, $df = 571$, $p \leq .05$) with a t-score of -2.721 as significant; (2) A significant difference was found in the mean gain scores on Knowing About Jobs with the experimental group gaining significantly more than the control group ($t = -2.271$, $df = 571$, $p \leq .05$) with the t-score of -2.271 as significant; (3) No significant difference was found in the achievement of students in the experimental group when their teachers did not attend the career education classes as compared to the achievement of the control group on the Attitude Scale ($t = -0.623$, $df = 252$, $p \leq .05$); (4) A significant difference was found in the mean gain scores on Knowing About Jobs where the portion of the experimental group whose teachers did not attend the career education classes scored significantly higher than the students in the control group ($t = -3.085$, $df = 252$, $p \leq .05$) with a t-score of -3.085 as significant.

In addition to the above tests, the analysis of variance was used to test the mean gain scores on the Attitude Scale by sex and grade for the experimental group. No significant difference was found in the mean gain scores by sex, although on the pretest, females scored significantly higher than males. A significant difference was found by grade in the mean gain scores with the sixth grade gaining the most, followed by the eighth and seventh grades, respectively. On the pretest the mean career maturity scores increased with an increase in grade.

It was thus concluded that there was a significant relationship between the career education classes and the increase in career maturity by those students whose teachers attended the classes in the sixth, seventh, and eighth grades. It was also concluded that teachers in the experimental group who did not attend the career education classes had a misconception that career education was for a knowledge of jobs only.

A STUDY OF THE IMPORTANCE OF INDIVIDUALIZED INSTRUCTIONAL
TECHNIQUES IN AGRICULTURAL MECHANICS AS EXPRESSED
BY AGRICULTURAL MECHANICS INSTRUCTORS AND
AGRICULTURAL MECHANICS EMPLOYEES

Kroenlein, John W.
M. S.

Kansas State University
1971

The study was designed to determine the individualized instructional techniques perceived as important by agricultural mechanics instructors and agricultural mechanics employees for an agricultural mechanics course of study.

The central theme of the study was based on the assumption that if agricultural mechanics training programs were to meet the objectives of vocational and technical education, the most effective instructional techniques should be utilized. It was also assumed that business and industry should be involved in the development of educational media, teaching techniques, and teaching materials.

Data were collected by a questionnaire developed with the assistance of Dr. James Albracht of Kansas State University. Data were obtained from forty-one agricultural mechanics instructors in community junior colleges and vocational technical schools in the United States and thirty-one agricultural mechanics employees in Dodge City, and Garden City, Kansas.

The responses given the questionnaire were analyzed by assigning a weighted value. Items which were rated as "Essential" were assigned 4 points; "Very Important," 3 points; "Important," 2 points; "Little Importance," 1 point; and "No Importance," 0 points. Educational media were classified as: "Essential" those which received 3.50 to 4.0 points; "Very Important," 2.50 to 3.49 points; "Important," 1.50 to 2.49 points; "Little Importance," 0.50 to 1.49 points; and "No Importance," 0.0 to 0.49 points.

It was found that agricultural mechanics instructors and agricultural mechanics employees perceived laboratory or work experience as an essential individualized instructional technique for an agricultural mechanics course of study. Verbal symbols, demonstrations, visual symbols, contrived experiences and programmed instruction were considered very important individualized instructional techniques. Agricultural mechanics instructors and agricultural mechanics employees perceived still pictures, field trips, and motion pictures important individualized instructional techniques. Television and tape recorders were perceived as having little importance by agricultural mechanics instructors and agricultural mechanics

employees as individualized instructional techniques for agricultural mechanics courses of study.

The results of the study indicated that agricultural mechanics instructors and company service schools utilized individualized instructional techniques in laboratory assignments but were using more conventional methods in the classroom presentation of materials. Assuming agricultural mechanics instructors were familiar with only the individualized instructional techniques they had used, it appeared that few individualized instructional materials had been developed in the areas of still pictures, motion pictures, television, and tape recorders for agricultural mechanics courses of study.

It was recommended that further studies be made of companies producing individualized instructional materials to see if there is a gap between what instructors use and what is available. It was further recommended that studies be made to see if individualized instructional materials are being developed by agricultural mechanics instructors and agricultural machinery companies, and if so, are they adapted for use in other programs of study.

The results of this study appeared to have implications for teacher education and for curriculum planning and teaching methods used in agricultural mechanics courses of study. As few individualized instructional materials appeared to be developed for classroom utilization, the instructor in an agricultural mechanics course of study should be prepared to develop his own individualized instructional materials.

OCCUPATIONAL INFORMATION KNOWLEDGE AND OCCUPATIONAL DECISIONS OF STUDENTS PARENTS AND TEACHERS IN TWELVE NEVADA HIGH SCHOOLS

Krueger, August William, Jr.
Ph. D.

Kansas State University
1975

Introduction

Vocational education is carried on in 46 widely varying high schools in Nevada. Variations include size, proximity to large population centers, and breadth of vocational offerings. The Nevada State Department of Education prepared a 1974 State Plan for Vocational Education which projected

replacement and expansion employment needs for 1978 for seven occupational clusters related to vocational education. These projections reflected both growth and differentiation for Nevada's future and were intended to serve as resource information for local school planners and decision-makers. This study utilized vocational students, vocational student parents, vocational teachers, and non-vocational teachers as subjects. An additional dimension was created by dividing high schools into large, medium, and small categories. Three large, three medium, and six small high schools were randomly selected for the study.

Procedure

Subjects were asked to rank-order the seven occupational clusters related to vocational education according to their perception of 1978 replacement and expansion needs in Nevada. Students were also asked to state the occupation they planned to enter after completing their education, and parents were asked to state the occupation they preferred for son or daughter.

A null hypothesis for each of the four groups stated that there was no significant correlation between its rank-order and the State Plan's rank-order of 1978 replacement and expansion needs by occupational cluster. Similar null hypotheses for the rank-order of student's occupational choices and parents' occupation preferences were formed, and a null hypothesis concerning the significance of concordance in each group was also stated. All of the above hypotheses were re-examined after stratifying the data by large, medium, and small high schools.

Findings

Unstratified data resulted in the retention of all null hypotheses which compared rank-orders of subjects' perceptions of 1978 replacement and expansion needs to the State Plan, and in the retention of null hypotheses comparing rank-order of students' occupational choices and parents' occupational preferences to the State Plan. Significant concordances were found in all groups, so the null hypothesis concerned with concordances was rejected.

No changes in the results described above were necessary when data was stratified by large, medium, and small schools except in the case of vocational teachers. Large school vocational teachers correlated significantly with the State Plan at the .05 level.

Examination of the various correlation matrices generated by this study indicated wide variation among groups of the same type of subjects when stratified by size, as well as differences among groups of different type subjects at a particular size level. These variations were apparent in most, but not all comparisons. A two-way analysis of variance confirmed

both school size and subject nature differences on the rank-order question.

AN ANALYSIS OF PROCESSES FOR THE DEVELOPMENT
OF A COMPREHENSIVE MASTER PLAN FOR
COMMUNITY EDUCATION IN THAILAND

Kunarak, Pragob
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1975

This study was conducted in an attempt to investigate and analyze possible means of facilitating the solution of the problem of how to identify individuals who should be involved in shaping a comprehensive master plan and how to identify strategies to assist them in the process of developing the master plan for community education in Thailand. The study also emphasized the identification of the planning process.

Literature and data examined in the study were those in related areas which included the following:

1. Projections as to the direction of education in Thailand and also in the United States as the major influence on Thai education.
2. Reviews of the socio-cultural and political-economic situations in Thailand.
3. The theories of planning and of change in societal agencies. Those references were secured from the Kansas State University and the Kansas State Teachers College Libraries; the Thailand Project at the University of Hawaii; the Harry S. Truman and the Dwight D. Eisenhower Presidential Libraries; the Interlibrary Loan Service; and sources from Thailand which Mr. Prachaya Klapachan, of Ramkamhaeng University of Thailand, coordinated and supplied.

The study was limited by two main factors: the investigator's own professional training, teaching and working experience, and present endeavor; and the scarcity of sources on community education, planning, and other related areas in the United States as well as in Thailand from 1945 to 1973.

The findings of the study suggested that individuals or personnel who should be involved in shaping the plan are those indicated in the following groups:

1. National Community Education Council of Thailand (NCEC). This group comprises representatives from both private and governmental agencies. Such agencies include the Ministry of Education, the Ministry of Interior, the Bureau of Budget, the National Economic Development Board, the Ministry of Agriculture, the National Education Council, private enterprises, college professors and lay citizens.

2. Top administration. This group comprises personnel who possess high positions in administration for community education in the Ministry of Education and the Ministry of Interior as well as in the Changwat or Provincial Administrative Organization.

3. Planning Unit. Personnel in this group are from all possible levels of Thailand's educational system. Such personnel include students, teachers, principals, provincial educational representatives, central office administrative staff members, lay citizens and professional planners.

The suggested process for developing the plan includes the following interdependent procedural steps: requesting a planning brain storming session; establishing a National Community Education Council of Thailand (NCEC); establishing a Community Education Planning Unit (CEPU); reviewing and appraising statistical data; formulating preliminary proposals for policies, goals and objectives; developing a plan; adopting action plans; implementing; evaluating; and revising and updating the plans. The process repeats itself periodically in order to assure that the plans are workable and updated.

It is recommended that planners of community education programs should consider all possible planning phases which might involve the process of developing the plan. Special attention should be given to the implementation period. The local level of the educational organization should be encouraged to establish its own planning unit. Budget analysis through the PPBS should be introduced. A proposal for a legislative amendment of the official time schedule for the community school should be made. Finally, an in-service training program on community education for top administration, such as the provincial governor and the district officer, should be initiated.

ORIENTATION AND INITIATION OF AGRICULTURAL RELATED
OCCUPATIONS IN THE HIGH SCHOOL CURRICULUM

Lambert, George L.
M. S.

Kansas State University
1971

The aim of this study was to investigate the ag. occupations programs in Kansas high schools. It was restricted to the 1969-70 school year. The purpose of the study was to determine what type of programs were being conducted: exploratory or placement, the six weeks period they were offered, the acceptance of the program, and the problems encountered. To obtain the needed information, a questionnaire was sent to the high school vocational agriculture teachers conducting the programs.

The study compared the programs in schools located in towns with under 2,500 population with those in schools located in towns of 2,500 and over. Thirty-five questionnaires were sent to the vocational agriculture teachers of the schools who had conducted the programs. Of the thirty-five schools 16 or 48.6 percent were in towns under 2,500 with 12 of the 16 or 85.7 percent who were conducting programs. The remaining 19 of the 35 or 51.4 percent were located in towns of 2,500 and over with 17 of the 19 or 89.5 percent who were conducting programs. The completed questionnaires included 29 or 17.5 percent of the 165 vocational agriculture departments in Kansas.

Twenty of 29 or 68.9 percent of the teachers held the Bachelor of Science degree. The teachers had 5.3 college hours in ag. occupations courses. The number of training stations was greater in towns over 2,500; however, the percentage of agricultural training stations was larger in towns under 2,500.

Approximately 25 percent of the schools indicated classroom instruction was held the junior year and this was evenly distributed by six week periods throughout the year. Approximately 90 percent of the schools had classroom instruction the senior year with most of the schools having it the first semester.

The ag. occupations programs in towns under 2,500 indicated an exploratory type while towns of 2,500 and over indicated the placement type.

The ag. occupations program had been declared a definite success by all the people directly connected with it. In towns under 2,500 the teachers perceived a greater degree of success than did teachers in towns 2,500 and over.

The problems encountered with the ag. occupations programs in Kansas had been few in number as indicated by the results of the questionnaire. The teachers listed, in order, the following problems: visitation time, scheduling, minimum wage, instruction in the training station, instruction in the classroom, student placement, obtaining training stations, transportation, and discipline.

Recommendations

The recommendations were based upon observations made during the period of the study and the author's interpretation of the data. They were as follows:

1. More college hours be offered in the area of ag. occupations.
2. The State Department of Vocational Education place more emphasis on ag. occupations programs.
3. The teachers should be more aware of the problems encountered with visitation time, scheduling, and minimum wage.
4. The Kansas vocational agriculture teachers should be informed of the acceptance and success of the ag. occupations programs in Kansas.
5. More research and study should be implemented in this area by the use of the following suggestions:
 - a. Send questionnaires to administrators as well as to teachers.
 - b. Survey the schools to determine the number of students in the programs.
 - c. Survey teachers to obtain information on the materials used in the program (training plans, books, and teaching aids).

A TWENTY YEAR FOLLOW-UP OF VOCATIONAL AGRICULTURE
GRADUATES AT HANOVER HIGH SCHOOL, 1951-1970

Lampe, Alvin Leroy
M. S.

Kansas State University
1971

The purpose of this study was to determine the occupational status of the vocational agriculture graduates of Hanover High School, and to provide data which would be of assistance in determining the value of the vocational agriculture program to the graduates on the job and in the home. An additional purpose was to determine what other areas of training the graduates perceived as needed.

Information was obtained by sending a questionnaire to each graduate with three or more years of vocational agriculture. Questionnaires were returned by 95 of the 120 graduates. The major findings indicated that 75 of the 95 graduates (74.4 percent) were engaged in farming or agriculture-related occupations, and 25 (26.3 percent) were in non-agricultural occupations.

It was found that graduates in farming and agriculture-related occupations placed a higher value on the vocational agriculture areas of instruction for use on the job than graduates in non-agriculture jobs with the exception of leadership and electricity.

When the same areas of instruction were evaluated according to use in the home, graduates in non-agriculture jobs valued eleven areas higher than those engaged in farming. Seven areas of instruction in production agriculture were rated lower by graduates in non-agriculture jobs for use in the home than by graduates in farming and agriculture-related jobs. The survey indicated that the unit on orchard was valued least by both groups.

It was found that 33 former graduates (34.7 percent) of the 95 surveyed continued their education beyond high school. Only 25 (26 percent) completed their educational objectives. College graduates, for the most part, found employment outside the community. The percentage of graduates who continued education beyond high school was less than average when compared with other schools.

It was found that, of the graduates surveyed, those in full-time farming (13) and part-time farming (14) made fewer job changes than those in agriculture-related (30) and non-agricultural occupations (62).

Sixty-seven (68.9 percent) of the graduates continued to live in the Hanover area. Four (4.2 percent) of the graduates lived in the county;

nine (9.4 percent) made their home in Kansas; and fifteen (16.8 percent) lived out of the state.

It was found that of the former students engaged in farming and agriculture-related jobs, twenty-seven (64 percent) were single. Only one of the non-agricultural graduates was unmarried. These findings were contrary to most related studies.

As a result of the findings, it was concluded that vocational agriculture had been of value to the Hanover, Kansas, community as evidenced by the responses of Hanover High School vocational agriculture graduates engaged in farming and in agriculture-related occupations, who were making their residence in the community.

Based upon the outcomes of the study, the writer made the following recommendations:

1. Continued emphasis should be placed upon the vocational agriculture areas of instruction that were taught, which meet the needs of those going into farming and agriculture-related occupations.
2. Because of the increased percentage of graduates engaged in agricultural-related occupations, more emphasis should be placed on agricultural-related areas of instruction.
3. Those subject areas of instruction which were found to be of little value on the job and in the home should be dropped or de-emphasized.
4. Due to the large percentage of students not continuing education beyond high school, a greater emphasis should be placed upon vocational courses in Hanover High School.

A STUDY OF THE ATTITUDES TOWARD WORK AS EXPRESSED BY
THE TWENTY-EIGHT MALE STUDENTS OF ENSIGN HIGH SCHOOL
AND THE SIXTY-FOUR MALE STUDENTS OF
CIMARRON HIGH SCHOOL IN 1970-71

Lamunyon, Dennis Gail
M. S.

Kansas State University
1971

The study was designed to survey the attitudes toward work of the twenty-eight male students of Ensign High School who had vocational

agriculture and the sixty-four male students of Cimarron High School who had no vocational agriculture during the 1970-71 school year. Data was collected by the use of a questionnaire which contained forty-nine statements in seven areas of work attitudes. The seven areas of work attitudes were: (1) Adequacy of School's Preparation, (2) Supervision and Supervisors, (3) Peers, (4) Choosing a Job, (5) Rights and Responsibilities of Employees, (6) Inner Satisfaction of Working and (7) Expectation of Future Advancement.

The forty-nine attitude statements were either positive or negative. The respondents were given a score of 4 points for Strongly Agree, 3 points for Mildly Agree, 2 points for Mildly Disagree and 1 point for Strongly Disagree for each positive statement. Each respondent was given 4 points for Strong Disagree, 3 points for Mildly Disagree, 2 points for Mildly Agree and 1 point for Strongly Agree for each negative statement.

Weighted averages for the two groups of students were determined by dividing the accumulated point totals for the responses by the number of students involved in each of the groups. A sum average for each area was obtained by adding the weighted averages for each statement and dividing by the number of statements in each of the seven areas.

Ensign High School students had higher sum average scores in the following areas: Adequacy of School's Preparation; Peers; Choosing a job; Rights and Responsibilities of Employees and Expectation of Future Advancement. Cimarron High School students had higher sum average scores in the areas of Supervision and Supervisors and Inner Satisfaction of Working. It was found that the sum average scores of the two groups for the seven areas were nearly the same.

Some marked differences in the scores of students in each school for individual attitude statements were found. The lowest weighted sum average scores for both groups occurred in the area of Supervision and Supervisors. The highest weighted sum average scores for both groups involved the area of Choosing a Job. The scores were generally high on all work attitude statements.

Students in both groups were rated the highest for the following work attitude statements:

1. I want to work for a person who gives me a chance to show my ability. (+)
2. I think anyone who works should take pride in his job and do the best he can. (+)
3. I want to work with people who take their work seriously enough to do a good job. (+)

4. I want to go to work so I can support myself and won't have to depend on mom and dad. (+)

5. I feel I am mature enough to handle some responsibility and I appreciate its being given me. (+)

Students in both groups scored the lowest on the following work attitude statements:

1. I don't think I need to admire my boss just because of his position. (-)

2. Most bosses tend to be not quite fair to everyone in their employ. (-)

3. I think most bosses are just average humans like me but somehow they've had pull and money. (-)

4. I think the boss should be able to discuss your problems with you at any time of the day. (-)

Studies of the work attitude statements in the areas of Supervision and Supervisors and Adequacy of School's Preparation were recommended as a result of the study. Additional studies should be made to compare attitudes toward work in urban and rural settings. Results of the study should be considered when incorporating a study of work attitudes into a curriculum.

ATTITUDES OF GUAM PUBLIC SCHOOL TEACHERS AND THE MANAGERS OF BUSINESSES TOWARD WORK CONCEPTS OF CAREER EDUCATION

Leddy, Patrick S.
Ph. D.

Kansas State University
1975

With a major thrust being given by the Department of Education for the implementation of the career education concept on Guam, information was desired about the attitudes of the island population toward specific concepts of career education. The problem guiding this study was one created by the fact that a systematic investigation on the attitudes of Guam

public school teachers and island business managers toward the work concept of career education had not been conducted.

The objectives of this study were:

1. To review literature pertaining to the work concepts of career education.
2. To ascertain the differences between the Guam public school teachers and business managers in attitudes toward the work concepts of career education.
3. To determine the differences between teachers on the basis of their residency status in their attitudes toward the work concepts.
4. To analyze the relationship between attitude and the degree of dogmatism.

A random selection of teachers and of business managers were examined by means of a three-part opinionnaire: (1) Work Concepts Attitude Scale, (2) Short-Form Dogmatic Scale, and (3) Personal Data Form. The teacher sample was further divided into two groups based on their Guam residency status and incorporated in several comparisons to determine whether they were independent with respect to the criterion variables. Six null hypotheses relative to objectives 2, 3, and 4 were generated and tested at the .05 level of significance.

The general conclusion from analysis of data relative to objective 2 was that the public school teachers do differ from the business managers in attitudes relative to specific work concept items.

Objective 3 sought to investigate the difference in attitudes toward work concepts of career education among permanent resident teachers, non-permanent resident teachers, and business managers. The analysis of variance did show that the three groups differ significantly among themselves in their attitudes toward several work concept items.

Relative to objective 4, analyses were made to investigate (1) the between group differences in scores on the dogmatism scale, and (2) the relationship between dogmatism and work concept attitude. The t-test analysis showed that the business managers were significantly more dogmatic than all teachers. The ANOVA revealed a statistically significant F-value in the comparison of scores among the permanent resident teachers, non-permanent resident teachers, and business managers, and Tukey Multiple Comparison test reported that three groups were significantly different in all pairwise comparisons with respect to dogmatism scores.

The Pearson product moment correlation test did not reveal any statistically significant relationship between dogmatism and attitude toward

work concepts in any of the groups studied.

The general conclusion from reviewing literature for this study was that there is an abundance of material available concerning the theoretical framework of career education to guide Guam leaders in drawing preliminary plans to institute career education in the island's schools. The review showed that career education experts strongly emphasized the need for local grassroots assessment prior to the implementation of the career education concept. Literature concerning research studies on attitudes toward work concepts of career education was limited.

The general implication of the study is that the Guam Public School teachers and island business managers shared a strong desire to see the work concept implemented in the school system. Neither the residency status of the teachers nor the degree of dogmatism in teachers nor the degree of dogmatism in teachers or business managers on the island should present barriers to the implementation of the work concept of career education.

AN EVALUATION STUDY OF THE 1972 KANSAS SUMMER WORK-STUDY PROGRAM FOR DISADVANTAGED HIGH SCHOOL STUDENTS

Leep, J. Leroy
Ph. D.

Kansas State University
1973

Purpose of the Study

The major purpose of this study was to evaluate the relative effectiveness of the Kansas division of Vocational Education's 1972 summer work-study program. The program proposed to help disadvantaged high school students as follows: (1) to develop adequate work values, (2) to modify perceptions of ten common concepts that have latent potential for influencing occupational choices, (3) and to develop awareness of personal interests and basic needs and how they relate to occupational choices.

Many students do not have the opportunity to observe and experience the behavior necessary to formulate adequate work values, occupational interests and accepted employer-employee attitudes. Defined as disadvantaged by the 1968 Vocational Education amendments, these students were identified as a target population to receive special attention.

Categorical vocational monies were appropriated to be used by state educational departments to develop alternative programs for overcoming the social forces that most greatly influence the disadvantaged student. As a result of this action, this study was implemented to objectively evaluate the vocational work-study concept as a practical solution toward making the transition from school to work more meaningful for disadvantaged students.

Methods and Procedures

Two hundred and twelve disadvantaged high school students comprised the study population. A related sample research design with t-test for significance was used to determine the overall effects of the program. Two research instruments and an evaluative technique were utilized for testing three null hypotheses. The use of three different evaluative instruments was necessary to better assess the majority of the most noteworthy aspects of the program.

Hypothesis one--There will not be significant changes in students' attitudes toward fifteen work values as measured by Super's Work Values Inventory.

Hypothesis two--There will not be significant changes in students' perceptions of ten concepts that have latent potential for influencing occupational choices as measured by a Semantic Differential.

Hypothesis three--There will not be significant changes in students' awarenesses of personal interests; basic needs and their relationship to occupational choices as measured by Hall's Occupational Orientation Inventory.

Findings

The students' attitudes changed significantly toward four work values at the .05 level. They were as follows: "Intellectual Stimulation," "Altruism," "Variety," and "Achievement." The overall effect of the program to promote growth in work values was nonsignificant. Therefore, hypothesis one was retained.

The students' perceptions changed significantly toward the "Teacher" and "Rules and Regulations" concepts at the .05 level. The overall effect of the program was nonsignificant in promoting changes in perceptions of ten given concepts. Therefore, hypothesis two was retained.

The students' attitudes changed significantly toward the "Qualifications Concern" subscale at the .05 level. The overall effect of the program was nonsignificant in helping the students to become more aware of the

relationship between personal interests; basic needs and occupational choices. Therefore, hypothesis three was retained.

Conclusions and Recommendations

The students' responses to the testing instruments reflected what was being emphasized by individual programs. Significant growth appeared to be impractical because achievement of program objectives was either overlooked or misinterpreted by the program counselor-coordinators. Program emphasis appeared to be concentrated more on good work habits, thus creating a favorable employer-employee relationship and not on work values, job interests, and awarenesses of basic needs. This emphasis on good work relations has much merit, however, program objectives should be revised to reflect what is actually being emphasized.

The summer work-study program was relatively ineffective in achieving its stated objectives, however, there was ample evidence of some meaningful change in student attitudes. It appears that an eight week program does not allow enough time for a measurable amount of significant changes in behavior to occur. Further research is suggested for determining the best possible work-study conditions for helping disadvantaged students learn how to make the transition from school to the world of work.

THE COMPARISON OF CERTAIN MEASURES OF INDIVIDUALIZATION OF INSTRUCTION AND PREPARATION TIME NECESSARY TO PASS THE GENERAL EDUCATIONAL DEVELOPMENT TEST

Lockhart, William Edward
Ph. D.

Kansas State University
1972

The research measured student progress in ten Kansas adult basic education programs to determine whether or not individualization of instruction affected student progress.

Individualization was defined in terms of the following components: (1) self-pacing, (2) prescription, (3) monitoring, (4) student choice of materials, (5) goal-related materials, (6) total materials, (7) student access to materials, (8) grading speed, and (9) ease of student entry to and exit from a program. An instrument was developed and each component of individualization was measured in each program by administering the

instrument to students with seventh grade academic ability or above. Programs were categorized by (1) total extent of individualization, and (2) extent of each component of individualization.

Progress for students was measured by compiling the classroom clock-hours of preparation time each student spent to pass the General Educational Development Test. Preparation times for students in each category of programs with different extents of individualization were compared using the Analysis of Variance. Preparation times decreased significantly as individualization increased.

Programs were categorized using the extent of each component of individualization as a criterion. Mean student preparation times were compared by the Analysis of Variance. Components favorably affecting student preparation time were (1) self-pacing, (2) student access to materials, (3) grading speed, (4) total materials, and (5) student choice of study materials.

The following subcomponents were found to lower student preparation times: (1) individual record of study materials, and (2) joint teacher-student choice of study materials.

The research revealed that five components and two subcomponents of individualization significantly lowered preparation time to pass the General Educational Development Test when students began study with an academic level of seventh grade or above. In those programs where shorter preparation times for students is a desirable goal, those techniques should be implemented.

The instrument developed for the study can be utilized by administrators in adult basic education programs to measure the present extent of those techniques in their programs when changes in method are considered. The instrument can be administered again when changes have been made to see if the desired results have been obtained.

A COMPARISON OF SINGLE-TEACHER AND MULTIPLE-TEACHER
VOCATIONAL AGRICULTURE DEPARTMENTS IN THE
AREA OF LEADERSHIP DEVELOPMENT

Marrs, Dan Ralph
M. S.

Kansas State University
1970

The purpose of this study was to compare single-teacher departments and multiple-teacher departments of vocational agriculture in the area of student leadership development.

The author used the ten multiple-teacher departments in operation in Kansas during the three year period of the study, the school years of 1966-67 through 1968-69. Ten single-teacher departments were selected randomly from the 140 single-teacher departments in Kansas. A questionnaire was developed which included ten of the major areas of leadership accomplishments of vocational agriculture students.

The data from the questionnaire were tabulated through frequency distributions and the results were given in numbers and percentages for both the single-teacher and multiple-teacher departments. A comparison of numbers and percentages was made of the accomplishments of the students in leadership development in the two sample groups. The major findings of this study were as follows:

1. The multiple-teacher departments had 79 or 78% of the State and American Farmers while the single-teacher departments had 22 or 22%.
2. The multiple-teacher departments acquired 67 or 89% of the foundation awards while the single-teacher departments acquired eight or 11%.
3. The multiple-teacher departments had 19 or 73% of the District and State FFA officers and the single-teacher departments had seven or 22%.
4. Of the public speaking winners, 43 or 73% were attributed to multiple-teacher departments and 17 or 27% were attributed to the single-teacher departments.
5. The students in multiple-teacher departments earned eight or 67% of the scholarships and the students in single-teacher departments earned four or 33%.
6. Judging teams from multiple-teacher departments acquired 200 or 76% of the awards and single-teacher departments acquired 64 or 24%.

7. Students from multiple-teacher departments earned 455 or 80% of the individual judging awards and students from single-teacher departments earned 116 or 20%.

8. Multiple-teacher departments earned 36 standard and superior awards, 11 state gold awards and two national gold awards or 64% of the total awards in the National Chapter Awards Program while single-teacher departments earned 26 standard and superior awards or 36% of the total awards.

9. Multiple-teacher departments acquired six or 100% of the chapter safety awards while the single-teacher departments acquired none.

10. Multiple-teacher departments earned 11 or 85% of the awards in cooperative activities and single-teacher departments earned two or 15% of these awards.

Based on the results of this study, the superiority of the multiple-teacher departments over the single-teacher departments of vocational agriculture, in the area of leadership development of students, was apparent. In all the ten areas of leadership development, the multiple-teacher departments excelled the single-teacher departments in the attainment of individual and group leadership awards.

The author recommended that other studies should be conducted which would compare single-teacher and multiple-teacher departments in areas other than leadership development. The author also recommended that more multiple-teacher departments should be implemented to provide more effective leadership development.

A FOLLOW-UP STUDY OF THE GRAMBLING EVALUATION AND TRAINING CENTER

Mason, Joycelyn Jean
M. S.

Kansas State University
1973

The purpose of the study was to account for the clients served by the Grambling Evaluation and Training Center in terms of a follow-up. Specifically, the objectives of this study were:

1. To discover the present activities of the clients served by the GET Center over the past six years.
2. To discover what percentage of the clients is gainfully employed.
3. To discover the type of work the clients are doing.

A cover letter and information sheet were mailed to the counselors who represented the clients to obtain the necessary information for the study. A month later, a follow-up letter was sent to all counselors who had not responded.

The findings of the study were based on 90 respondents who represented 53 percent of the total population. From the tabulation of responses, the following findings were revealed:

1. Fifty-four and four tenths (54.4) percent of the 90 clients whose responses are reported in the study were employed. Of the 64 male clients reported in the study, 60.9 percent were employed. Of the 26 female clients reported in the study, 38.5 percent were employed. It was revealed that the male clients were employed in a wide variety of unskilled jobs. There were 21 different types of jobs reported in the study. More of the male clients were employed in the following areas of work: construction, general labor, service station, farm, and domestic. The female clients were employed as: taxicab dispatcher, babysitter, domestic worker, dishwasher, waitress, maid, and cafeteria worker.

2. Sixteen and seven tenths (16.7) percent of the 90 clients whose responses are reported in the study were unemployed. Of the male clients reporting, only 9.4 percent were unemployed. Of the female clients reporting, 34.6 percent were unemployed. The reader should remember, however, that 47 percent of the clients are unaccounted for. Hence, the actual percent of unemployed clients may be much higher than those figures indicate.

3. Other activities of the 90 clients whose responses are reported in the study were 6.7 percent in training programs, 6.7 percent re-entered public school, 5.6 percent in sheltered workshops, and only 1.0 percent deceased.

Other findings revealed that the mean annual earning for the male clients was \$2676.27 with the median and mode being \$3120. The annual earnings ranged from \$1040 - \$3640. The mean earning for the female clients was \$2225.60 with the median and mode being \$2080. The annual earnings ranged from \$1560 - \$3328.

The findings indicated that the majority of the 90 clients reported in the study did gain entry into suitable employment. Hence, the investigator

felt that the vocational preparation received at the GET Center did help clients to become employable.

A TEST OF THE HYPOTHESIS OF NO RELATIONSHIP BETWEEN
CONCOMITANT VARIABLES AND AIR-CONDITIONING
AND REFRIGERATION TRAINEE SUCCESS

Murry, Clair A.
Ph. D.

Kansas State University
1972

The study represented an attempt to ascertain the success of the air-conditioning and refrigeration instructional training programs offered by the various tax-supported educational agencies in Kansas.

It was proposed that the investigation would delineate the optimum course length for courses with the primary objective of job entry skills.

An attempt was also made to assess the attributes of the entering student that would be most likely to insure his success when measured by his grade point average while in the program and by his income after he had entered the job market.

An additional purpose of the study was to demonstrate a method by which all trade, industrial, and technical courses could be evaluated. It was not intended that this method be restricted to air-conditioning and refrigeration programs alone.

The investigator attempted to survey all air-conditioning and refrigeration students who had attended Kansas public educational institutions in the period beginning August, 1966 and ending September, 1971. The survey was limited to courses whose primary emphasis was the air-conditioning and refrigeration trade areas and to institutions that were offering programs at the time of the survey.

The total population consisted of 209 male students and all were surveyed. Fifty-five subjects, however, were not used in the analysis because of factors causing them to lack either the predictor or the criterion variables needed for the analysis of the data.

A number of null hypotheses were subjected to statistical tests designed to either affirm or disprove their assumptions. These hypotheses

stated that there was no positive correlation between twelve independent or predictor variables and the criterions of student grade point averages and graduate income.

Based on the results of an analysis and interpretation of the correlations between the predictor and criterion variables, the following conclusions were formed:

1. Older students received significantly higher income and grades.
2. Prior education measured in years had no significant effect on either the graduate grade point average or his income.
3. High scores on the Henmon-Nelson Tests of Mental Ability correlate with both higher grade point averages and higher graduate income.
4. High school grade point average and General Aptitude Test Battery tests proposed to measure general learning ability and manual dexterity were predictors of grade point averages but did not correlate with graduate salaries well enough to attain the .05 level of confidence.
5. The following General Aptitude Test Battery scores were found to be ineffective predictors of both grade point averages and graduate salaries:

V - Verbal aptitude

N - Numerical aptitude

S - Spatial aptitude

P - Form perception

Although the average wages for graduates of Kansas two year air-conditioning and refrigeration instructional offerings averaged \$725.74 more for their first year of employment than one year students, this amount was not enough to compensate the student for his foregone income, interest, and other added expenses. Each successful two year student represented an added cost to the student and the taxpayer of over \$8,900 when his training costs and income were compared to those of the successful one year graduate.

A FOLLOW-UP STUDY OF INMATES COMPLETING MDTA
VOCATIONAL TRAINING AT THE KANSAS STATE
INDUSTRIAL REFORMATORY

Nelson, William John
Ph. D.

Kansas State University
1973

The purpose of this study was to determine the employment success record and cost-benefit of Kansas State Industrial Reformatory Manpower Development and Training Program trainees as compared with inmates receiving no vocational training. Non-trainees were involved only in institutional work experience details.

The investigation surveyed the training project designated as number 0007 beginning March 2, 1970 and ending April 2, 1972. Inmates were in the program for approximately one year of training. Only trainees who were paroled into supervision were included because of the necessity for acquiring follow-up information. Trainees who began and finished in the project year and were paroled numbered 67 and served as the training group for the study.

The control group was derived from the general population of inmates who had been working in the institutional detail program. Parole period for trainees was established to be from May, 1970 to August, 1972 and the control group was composed of 87 prisoners paroled during that period.

Data was collected by gleaning confidential files, master directory, MDTA training files and monthly parole reports from the Kansas State Industrial Reformatory. Follow-up information on recidivism and wages was obtained from quarterly and special parole reports found in the confidential parole files at the Kansas Board of Probation and Parole, Topeka, Kansas.

The application of several statistical tests on nominal and continuous variables found in the study and the computation of cost-benefit resulted in numerous conclusions.

1. The MDTA trainees at the Kansas State Industrial Reformatory had significantly lower recidivism rates (22 percent) than their corresponding controls (41 percent).

2. The only inequality between samples was found to be in the Beta Intelligence Quotient (IQ) mean. There was a significant difference in the mean Beta IQ of 99 for the trainees and 93 for the controls.

3. The reduction in the rate of recidivism for trainees compared with the control group was a result of training.

4. The training and control groups were found to be equal on the variables of primary offense, race, employment upon release, age, educational level, number of dependents, minimum and maximum controlling sentence and all categories of wages.

5. Only 29 percent of the trainees found training related employment while 71 percent did not.

6. The wages for both groups were not significantly different at all levels studied.

7. Education and intelligence were found to be inversely correlated with the number of criminal offenses.

8. Negative attitude was responsible for inmates not being paroled immediately after graduation from the MDTA program.

9. Trainees were found to pay back to society their cost of training at 13.69 months. The ability of trainees to pay the cost of training back was primarily a result of the graduates remaining out of prison, after release, and working.

The study demonstrated that the training program was responsible for reducing the rate of recidivism by approximately one-half over a corresponding rate of the control group. Economically, the lower recidivism rate was the reason trainees were able to pay back to society their cost of training.

A DESCRIPTIVE STUDY OF ADULT BASIC EDUCATION IN KANSAS

Norheim, Brynjulv D.
M. S.

Kansas State University
1971

The purposes of the study were: (1) to determine the extent of adult basic education programs in areas of Kansas where most undereducated adults reside; (2) to describe the manner in which the programs are operated in order to meet the needs of the students; and (3) to describe some common characteristics of the programs, administrators and students.

Data were collected from the annual ABE reports in the State Department of Education, Division of Adult Education. Information was acquired from those programs that had actively participated in adult basic education during the fiscal years 1968, 1969 and 1970. Visits were paid to some programs to obtain additional information. A questionnaire was then mailed to the directors of the Kansas ABE-programs and later collected at an ABE-workshop at Kansas State University.

A review of the literature was conducted to obtain pertinent information related to this study.

Twenty-six educational institutions participated in the adult basic education program for the 1970-71 fiscal year. There were 3,337 enrollees the preceding fiscal year, and 1,398 students passed the G. E. D. test as a result of the program.

Participation by Geographical Area

Extent of participation. Twenty-seven percent of the total ABE-programs were located in the south-southeast area, twenty-three percent in east central and four percent in the north-northeast area. The remainder were distributed in the other areas.

Enrollment. The south central area had forty-six percent of the total enrollment and northwest the lowest, four and one-half percent. Enrollments in the other areas ranged between these two.

Educational level. The highest percentage of undereducated adults was found in the south-southeast area which accounted for more than twelve percent. The north-northwest area constituted nearly ten percent and the remaining areas had about an even percentage.

Expenditure of federal funds. The south central area expended the highest percentage of federal funds, over thirty-two percent, and the north central the lowest, almost seven and a half percent.

Characteristics of the Programs

The study revealed the following characteristics of the programs: Fifty percent of the programs were sponsored by the community colleges; forty-five percent did not have an advisory committee; courses lasted from twenty to fifty-two weeks per year and most class sessions lasted for two hours; sixty-four percent of the administrators had the course objectives written down; the expressed reason for students to enroll was to acquire a high school diploma; the most effective method in recruitment was word of mouth and personal contact, according to sixty-five percent of the administrators; the dropout rate for the last three fiscal years was 26.8 percent for each program in average; seventy-two percent used a balance of

traditional and programmed material, nine percent used only programmed material. Seventy-two percent of the programs maintained a library, seventy-two percent offered pre-service training, and in-service training was provided by sixty-four percent of all programs; teachers' hourly payment ranged from four dollars to ten dollars, the average hourly pay for the last three fiscal years was \$5.37; one-third of the directors were engaged in teaching and twenty-seven percent spent all their working time on administrative work; black Americans constituted fifteen percent of the total enrollment, white Americans sixty-six percent, Spanish Americans nine percent, foreigners nine percent and American Indians one percent.

The author offers five implications for further research:

1. That a study be conducted to improve retention in adult basic education programs.
2. That the library, books and material be improved in those programs that are lacking such or have an inadequate supply.
3. That provisions be made to assist students in obtaining occupational training, new jobs or better employment.
4. That efforts be made to insure accuracy in record keeping and in the completion of reports requested by the state office.
5. That advisory committees be established in all local ABE-programs as required by the State Plan for Adult Basic Education in Kansas.

AN ANALYSIS OF THE NET MANPOWER NEEDS IN THE KANSAS CITY STANDARD METROPOLITAN STATISTICAL AREA FROM 1972 THROUGH 1976

Norheim, Brynjulv D.
Ph. D.

Kansas State University
1973

This study was an attempt to examine the manpower situation in a local labor market which extends across state boundaries. The Kansas City Standard Metropolitan Statistical Area was selected as the area to be investigated.

The need for this study was recognized by educational planners in the states of Kansas and Missouri as a means of implementing coordinated educational planning in the Kansas City area.

The first objective of this study was to develop an interfacing of manpower demand and manpower supply to estimate needs.

The next objective was to test two hypotheses. Hypothesis 1 investigated whether or not there was a statistical discrepancy between the distributions of manpower demand and manpower supply in the Kansas City SMSA. Hypothesis 2 investigated whether or not there was significant difference between the proportion of manpower oversupply in the state of Kansas and the Kansas City SMSA.

The final step of the investigation was to answer the research question which considered the percent of manpower oversupply in the Kansas City SMSA that is accounted for in situations where combined training produced an excess of manpower supply.

An interfacing table was presented with the appropriate demand or supply data entered in each column by occupation and training program cluster. The final column of the table indicated net manpower needs by occupation-program cluster for the 1972-1976 period inclusively.

Both hypotheses were retained. The disposition of Hypothesis 1 indicated that the manpower demand and the manpower supply were distributed in a significantly different manner relative to occupation-program clusters. The disposition of Hypothesis 2 indicated that there was a significant difference in the proportion of manpower oversupply in the Kansas City SMSA and the proportion of manpower oversupply in the state of Kansas.

The analysis of the research question showed that ten training areas produced an oversupply of workers. Of these ten, only two fit the situation where neither state produced an oversupply by itself. The other eight oversupply areas were caused by the student production of a single state. Private schools accounted for most of the projected oversupply of workers.

It was concluded that there is a need for vocational clusters to coordinate the planning of the Kansas City SMSA training program mix in light of manpower demand and supply. Private schools are basing their program planning on something other than manpower needs, and there is a need for private school representatives to be included in the vocational planning process.

The Kansas City SMSA does not produce enough trained workers in certain occupations to meet the needs of the local labor market, and employment opportunities for individuals trained elsewhere will exist in these

occupations unless the training aspect changes. There is no projected need for additional training programs in ten training areas.

It was further concluded that a mobility study of vocational graduates in and out of the Kansas City SMSA would facilitate better planning.

PROPOSED CURRICULUM GUIDE FOR SCHOOL OF IRRIGATION AGRONOMY, BAKURA, NORTHERN NIGERIA

Ogbole, Bartholomew Ochigbo
M. S.

Kansas State University
1973

The purpose of this study was to develop a curriculum guide for the school of Irrigation Agronomy, Bakura in the northern states of Nigeria. In the literature reviewed the concept of curriculum was identified and a curriculum guide defined. The roles played by religion, politics and other elements in influencing curriculum development were noted. The three common types of curricular patterns: (1) subject-centered, (2) student-centered, and (3) society-centered served as guides for decision making in developing the Bakura School curriculum. The school's assignment is to provide basic technical knowledge in irrigation agronomy. Hopefully the school would help to cultivate a desire for knowledge in the students and enable them to explore society's needs so they would be able to get along and work effectively, while working to improve the society. The writer, on the basis of the school philosophy, made certain assumptions concerning the learning process, the needs of the individual student, the social and technical needs of Nigeria and the educational objectives, developed a guide for a four term (12 month) teaching program.

Subject matter areas were obtained from information gathered from the literature reviewed, consultations with administrators, and technical and subject matter specialists. The writer's professional knowledge and four years personal experience as a teacher and as an extension officer in Nigeria and the training acquired in education and irrigation agronomy at Kansas State University gave him a useful and valuable insight into the problem. The subject matter areas covered fourteen major competencies. These were: (1) Agronomy; (2) Soil Science; (3) Farm Mechanics; (4) Extension; (5) Rural Sociology; (6) Irrigation; (7) Surveying; (8) Soil Conservation; (9) Horticulture; (10) Crop Protection; (11) Government Regulations; (12) Field Experimentation; (13) Agricultural Economics and (14) Water Quality. Each subject was further divided into sub units which outlined the content of the

course for each particular subject. The subject matter areas and sub units made up the curriculum guide.

Evaluation of technical agricultural training was briefly discussed. The progress of the trainees would be evaluated by paper and pencil tests and other kinds, such as ratings and check lists. The check list developed by the writer would be used by supervisors for evaluation of 3 to 4 months' field work experience programs. These evaluations would form the basis for the awarding of certificates. A follow-up for long-range evaluation purposes would be carried out for the purpose of reorganizing and improving the curriculum.

The curriculum guide developed would hopefully provide the trainees with basic technical knowledge in irrigation agronomy. And, as a result, the successful candidates could perform the duties of Irrigation Assistants adequately, properly, and enthusiastically.

DEVELOPING A CURRICULUM FOR VOCATIONAL EDUCATION IN AGRICULTURE AND RELATED TRAINING FOR NIGERIAN SECONDARY SCHOOLS SYSTEM

Olawoye, Joel Olawuyi
M. S.

Kansas State University
1973

The purpose of this study was to establish a rational basis for understanding a theoretical framework for developing a curriculum for a proposed program of vocational education in agriculture and related training for the Nigerian secondary school system. An attempt was made to provide a background and justification for a need to establish the program. The study was not based on any data analysis but rather on concepts discussed in the review of literature and the author's personal experience. Certain applicable concepts from existing programs of vocational agriculture in some United States high schools were adapted when considered relevant to similar situations in Nigeria.

The following characteristics of the proposed curriculum for Nigeria were noted: (1) to offer appropriate learning experiences to all pupils emphasizing knowledge, skills and attitudes relevant to the world of work, (2) to serve the needs of the pupils academically, socially and psychologically, (3) to increase options available to pupils so they could make prudent career choices, (4) to serve the needs of the society taking into account the

diverse nature of the culture and socio-economic status of the country, (5) it should be based on the analysis of occupational information of the country's projected manpower needs, (6) it should be comprehensive, balanced and articulated vertically and horizontally. This would ensure that programs were current, dynamic and interesting.

The program would produce versatile persons and hence reduce training wastage from poor career choices. This had merit for a developing country like Nigeria in view of frequent changes in the requirements for various occupations, including agriculture, because of rapid changes in technology.

Included in the study were discussions on curriculum theory, designs, evaluation and change. A 'core' curriculum was developed to meet both pupils' and society's needs. A systems approach to curriculum development was preferred in the study because the writer felt it would afford more realistic opportunities for profitable instructor-pupil involvement in the proposed educational activities.

An integrated five year program was proposed. The first year courses were designed as pre-vocational in context to provide exploratory experiences and help pupils develop competencies and understandings that are part of a broad, general education. The vocational courses to be offered during the second to the fifth year would provide desirable competencies to enable pupils to gain employment and advance in agricultural occupations.

The subject matter content of the curriculum was arranged on a problem basis using a cross sectional model of organization to suit the developing levels of understanding of the pupils. The problem areas were categorized into the following main areas: (1) Biological and physical science, (2) Social science and (3) Agricultural mechanics. Instructor's input in the identification and analysis of problem areas to be taught was considered a vital factor. This would enable him to adapt instructional programs to pupils' needs based on local situations. Curriculum development and revision was noted as an important teacher improvement program.

A delivery systems approach to determining occupational needs was recognized as a desirable method for planning an occupational program for Nigeria. This meant that vocational education in agriculture should be an integral part of a total occupational education program comprising areas like health, home economics, technical, business and office, distributive and trade, and industrial occupations. The approach would not only ensure a wise commitment of public funds into occupational education, but manpower resource problems of the country would be objectively tackled.

Suggestions for further investigations into the strategies for implementing the program were also given in the study.

COMPARATIVE ANALYSIS OF THE TRAINING NEEDS OF POTENTIAL
AGRICULTURAL EXTENSION WORKERS, AND PRINCIPAL
PROBLEMS OF EXTENSION IN THE NORTHERN
STATES OF NIGERIA

Onazi, Ochapa Chiko
Ph. D.

Kansas State University
1973

The purpose of the study was to ascertain the training needs for potential extension agents in the northern states of Nigeria. This could facilitate the development of an appropriate program of training to provide agents with the knowledge, skills, and attitudes that would make them more competent and proficient in their jobs.

The training needs were identified from 126 specific topics of training in seven general areas. Data on training needs and related extension questions were obtained through questionnaires administered to experienced agents at in-service training meetings by extension specialists of Ahmadu Bello University.

A total of 189 junior and 96 senior extension staff from the six northern states responded. This represented nearly 68 percent of junior staff in the sample and 50 percent of senior staff engaged in extension work in the northern states.

Analysis of the data collected was made by comparing responses of agents based on the independent variables of status, tenure and agricultural training. The opinion of agents about the seven general areas of training and other extension topics were also compared by states. Significant differences in the opinions of junior and senior extension staff were determined by the use of the "Student's" t-test on weighted mean scores calculated for the various topics. Responses of agents by tenure and agricultural background were analyzed by means of the Chi-square statistic. Significant relationships were tested at the five percent level.

The results of the study appeared to support the following conclusions:

1. Extension agents in the northern states of Nigeria overwhelmingly endorsed the training offered at the Schools of Agriculture as being relevant to the needs of potential agents. This was evident from the high ratings given to a majority of the training items.

2. Extension agents in the northern states required training in the seven areas of study considered. These areas in priority order were:
(1) technical knowledge in agriculture, (2) agricultural extension philosophy,

organization, and administration, (3) communications, (4) program planning, (5) research and evaluation, (6) educational process and human development, and (7) sociological factors.

3. The most important areas in which agents needed intensive training were technical knowledge in agriculture; agricultural extension philosophy, organization, and administration; and communications.

4. Although there was general satisfaction with the program of training of agents, some changes appeared necessary in specific topics which received relatively low ratings.

5. There were significant differences in some items of training when opinions of extension staff were compared by status, tenure, and agricultural background.

6. This study revealed no philosophical differences concerning the training needs of extension workers in the six northern states of Nigeria.

7. Significant differences were found in some items when the responsibilities of agents and important extension problems were compared by status, tenure, and agricultural backgrounds of respondents.

8. The primary function of agricultural assistants in the northern states appeared to be that of dissemination of results of production-increasing research findings to farmers. The study, however, revealed that agents at this level devoted considerable time and effort in supervising agricultural instructors.

9. Provision of production inputs such as fertilizers, seeds and plant materials, etc., to farmers was regarded as a very important function of agents.

10. The most critical problem confronting the extension services were lack of adequate transportation facilities and inadequate staff to support extension programs. There was also some feeling that lack of technical competence among agents was a limiting factor in extension.

11. The findings of this study should be useful to the training institutions and the Ministries of Natural Resources in improving their respective programs.

PROPOSALS TO IMPROVE EFFECTIVENESS OF EXTENSION
WORKERS AND FARMERS IN THE USE OF FERTILIZERS
TO INCREASE PRODUCTION OF MAIZE (ZEA MAYS L.)
IN NORTHERN NIGERIA

Oni, David Olajide
M. S.

Kansas State University
1974

About 80% of Nigerian farmer's engaged in farming are still operating in a traditional agriculture at a subsistence level. This precludes the efficient use of fertilizers, along with other improved agricultural practices. The problem of how to transform the present farming system to a modern, intensive and permanent system of cultivation that would encourage better use of fertilizer for higher food crop production prompted this study.

The review of literature shows, that with the increase in population in Nigeria, pressure on the land is becoming more intense. The traditional bush fallow system of farming is in jeopardy as land can no longer be left to fallow for a sufficiently long period of time. Fertilizer trials at various locations in the country indicate that yields of food crops are increased by efficient use of fertilizers. But the use of fertilizer is still low despite the fact that State Governments sometimes bear up to 50% subsidy of the cost. Factors cited for limited use of fertilizer included: (1) high prices, (2) types of farming system, (3) lack of cash and credit facilities, and (4) reluctance of farmers to accept new practices due to lack of education, among other things.

The writer felt that education of the farmers, using simple and practical extension teaching methods, should be the basic approach for facilitating change. Toward this end a teaching guide covering some selected areas of extension teaching methods to be used in Schools of Agriculture in the northern states of Nigeria was developed based on the assumption that extension agents should be more knowledgeable in the areas of human relations and extension education methods, among other topics, for effective work with the farmers and achievement of realistic change among the farmers.

The guide covered nine areas: (1) Human Relations, (2) Interest and Dedication to Work, (3) Result Demonstration and Evaluation, (4) Working through Trained Local Leaders, (5) Tours and Field Trips, (6) Farm Visits and Office Calls, (7) Farmers' Meetings, (8) Supervision of the Agents, and (9) Incentives. Each area of the teaching guide was outlined in building up the guide. Recommendations which included training of more agents were made for the implementation of this proposal. A Handbook on fertilizer demonstration on maize (corn) and a record sheet for entering all pertinent

information, operations and data were prepared for the use of agents in the fields. These are included in Appendix I.

It is hoped that the teaching guide developed in this study, and the handbook on fertilizer result demonstrations, when carefully used, would enable the agents to gain desirable competence in manning the program and create a stronger desire for favorable change and action among the farmers.

RANKING OF SPECIFIED CLOTHING VALUES AND THEIR RELATION TO SOCIAL STATUS AS EXPRESSED BY EIGHTH GRADE GIRLS

Pair, Karen Chisholm
M. S.

Kansas State University
1970

The purpose of this study was to identify the ranking of specified clothing values held by a group of eighth grade girls, to compare these values to the participant's social status, and to draw implications from the findings of the study to be available for use by teachers of eighth grade clothing classes.

The sample consisted of 88 students in clothing classes from five junior high schools in Wichita, Kansas. The collection of data was by means of a three-part questionnaire. Parts I and II were composed of a clothing value measure. Part III consisted of a scale from which the students selected a choice nearest to their situation in four categories relating to social status. From this information the social status of the student was derived.

The specified clothing values, in the order as ranked by the entire sample, were as follows: economic, social II (use of clothing for approval or conformity), aesthetic, social I (consideration for others regarding clothing), and political.

Three social status groupings were used to relate values to status. The three groups used were upper-middle, lower-middle, and upper-lower. Differences were found in the ranking of the five clothing values by the three status groups. The ranking by the upper-middle group was in this order: social II, political, aesthetic, social I, and economic. The lower-middle group ranked the values as follows: economic, aesthetic, political, social I, and social II. The following is the manner in which the upper-lower group ranked the values: social I, political, social II, aesthetic, and economic.

From the results of the study implications were drawn to aid the teacher in realizing the importance of values of eighth grade girls, and to assist in planning curriculum content for teaching clothing classes.

INTEGRATING SELECTED HOME MANAGEMENT CONCEPTS IN JUNIOR HIGH SCHOOL HOMEMAKING

Palmer, Anita Mae
M. S.

Kansas State University
1969

The emphasis in home economics education is on the conceptual approach to learning. Concepts make it easier to organize knowledge, make learning more permanent, and allow individuals to see relationships between ideas. Concepts develop as a person perceives, discriminates, and has varied experiences with an object or idea. It is the responsibility of the teacher to select vital concepts and to plan and implement learning experiences so that pupils are able to develop these concepts and related generalizations.

Early adolescents are experiencing a temporary state of disorganization. They are perplexed as they try to cope with the complexities of their own rapid growth and changing attitudes, the whirl of school work and social activities, the fast-paced teen culture of which they are now a part, and the rapidly changing civilization into which they must fit.

Paralleling the work of scholars in other fields of study, home management specialists have been attempting to identify the concepts in their discipline. The majority of writers identify values, goals and resources as major concepts. Vital to the field also, are the types of decisions and how they are made and carried out.

The purposes of this study were (1) to identify the major concepts and generalizations in home management which are applicable to junior high school homemaking pupils; and (2) to develop meaningful learning experiences to facilitate the integration of selected home management concepts into other subject areas of junior high school homemaking education.

A list of home management concepts considered applicable, in some simple form, to junior high school homemaking classes was compiled. Major and sub-generalizations which gave meaning to or indicated

relationships between the concepts were listed. The two major generalizations were the following:

1. Goals are achieved through the wise use of resources
2. The conscious use of decision making and implementing techniques includes consideration of interacting factors which influence behavior.

Two objectives for each major generalization were developed and learning experiences involving various home economics subject areas were grouped under these objectives. The four behavioral objectives were (1) perceives resources available to individuals and groups, (2) understands that goals are related to the use of resources, (3) recognizes some of the factors which influence decisions, and (4) is able to use decision making and implementing techniques in selected situations. Evaluation devices, teaching procedures, and resources for concept development were incorporated into the statement of the learning experiences. Learning experiences were classified as to level and domain of the described behavior. No plans for teaching and evaluating the learning experiences were included.

FARM MACHINERY COMPETENCIES NEEDED FOR EMPLOYMENT IN PRODUCTION AGRICULTURE AND FARM MACHINERY DEALERSHIPS IN ELLSWORTH COUNTY

Patry, James Dean
M. S.

Kansas State University
1971

The purpose of this study was to identify the competencies which were needed for employment in production agriculture and in farm machinery dealerships in Ellsworth County. The problem was designed to provide information for the development of a curriculum which would include competencies considered as essential in the areas of production agriculture and farm machinery dealerships. Twenty farmers and seven farm machinery dealers in Ellsworth County served as the population for this study. The farmers were enrolled in the Ellsworth Young Farmer Class, and the dealers operated the retail farm machinery businesses in Ellsworth County.

Two major objectives were listed for this study as follows: to survey which competencies farmers and farm machinery dealers considered

necessary for their employees, and to determine the farm machines which were serviced and repaired and their relative importance as indicated by the production farmers and the farm machinery dealers.

The questionnaire consisted of three status questions, six competencies on knowledges of farm machinery, and sixteen competencies on abilities with farm machinery. The responses given to the items in the questionnaire by the farmers and the dealers were analyzed by assigning a weighted value to the responses given. Competencies rated as "Essential", were assigned 4 points; "Very Important", 3 points; "Important", 2 points; "Little importance", 1 point; and "No Importance", 0 points for the determination of the weighted averages. The sum for each competency was then divided by the number of respondents.

All competencies which received an average rating of 2.5 or above were to be considered as important in the development of a curriculum to prepare workers for employment in production agriculture and farm machinery dealerships. The twenty farmers rated 19 of 22 competencies as important with a rating of 2.5 or more for employment in production agriculture. The seven farm machinery dealers rated 21 of the 22 competencies which received an importance rating of 2.5 or more for employment in the farm machinery industry. The 19 competencies which received an importance rating of 2.5 or more should be included in the curriculum for the preparation of personnel for employment in production agriculture and farm machinery dealerships.

The sixteen most important machines used in Ellsworth County were also ranked by the farmers and dealers. Eight of the 16 farm machines received an importance rating of 2.5 or more by farmers for employment in production agriculture. The machines that farmers considered as important included: tractors, combine harvesters, balers, grain drills, plows, pesticide and insecticide applicators, sprayers, and anhydrous ammonia applicators. The seven farm machinery dealers rated eight of the 16 farm machines as 2.5 or more in importance for inclusion in the high school program of instruction for employment in farm machinery dealerships. The machines were: tractors, combine harvesters, balers, grain drills, plows, swathers, pesticide and insecticide applicators, and planters.

Machines which received an importance rating of 2.0 to 2.49 by both groups and which could be given consideration for inclusion in the curriculum were: ensilage cutters, mowers, and anhydrous ammonia applicators. Machines which received an importance rating of 2.0 or less by the two groups would not be included in the high school program of instruction. These machines were: rotary mowers, cultivators, hay rakes, and hay conditioners.

The following conclusions were reached after reviewing the results of this study:

1. The farmers and the farm machinery dealers were in agreement concerning the competencies needed for employment in production agriculture and farm machinery dealerships.
2. The farmers and farm machinery dealers were in agreement as to which farm machines should be included in the high school program of instruction.
3. The process for identifying competencies needed for employment in production agriculture and farm machinery dealerships was a satisfactory method and could be used to study competencies needed in other areas such as: production agriculture and farm chemical dealerships, production agriculture and feed dealerships, and production agriculture and seed dealerships.

THE USE OF MANPOWER NEEDS AND STUDENT INTEREST TO PLAN VOCATIONAL AND TECHNICAL PROGRAMS IN KANSAS

Price, Robert Gregg
Ph. D.

Kansas State University
1973

The Vocational Education Amendments of 1968 require that vocational and technical education programs prepare students for job opportunities and that student interest be considered when planning vocational offerings. Kansas does not have a policy which dictates the mix of student interest and manpower needs necessary for the establishment of a vocational or technical program.

The first objective of the study was to determine if manpower needs and student interest were compatible criteria on which to base vocational and technical programs.

The second objective was to determine if manpower needs, student interest or a combination of these two criteria was used for planning vocational and technical programs in Kansas.

Sample data was acquired for manpower needs, student interest and program enrollment. Manpower needs data was taken from the 1973 K-MUST report; student interest data was gathered by the K-VIEW system; and program enrollment data was provided by the Kansas State Department of Education.

The data was analyzed and a significant positive correlation between manpower needs and student interest was identified. This correlation indicated that student interest and manpower needs were compatible criteria for planning.

A composite rank for student interest and manpower needs was calculated and compared with program enrollment data. A significant positive correlation was determined between the composite criteria and program enrollment. This indicates that manpower needs and student interest have been utilized in vocational and technical education planning in the past.

A further analysis was conducted with compared student interest and program enrollment, and manpower needs and program enrollment. Both student interest and manpower needs were found to have a significant positive correlation with program enrollment, however, the student interest correlation was much greater than the manpower needs correlation. This indicates that more emphasis was placed on student interest than on manpower needs in the planning process.

This study should have a significant impact on the planning of vocational and technical education. Planners should become more aware of the part both manpower needs and student interest play in the planning process. An increased effort should be made to establish weighting policies concerning the mix of manpower needs and student interest for vocational and technical program planning purposes. Attempts should be made to identify other factors which affect vocational and technical planning.

THE RELATIONSHIP BETWEEN EDUCATIONAL BACKGROUND AND SCORES ON THE KANSAS PERSONNEL DIVISION EXAMINATION FOR CLERK-TYPIST AND CLERK-STENOGRAPHER

Rader, Martha H.
Ph. D.

Kansas State University
1973

Statement of the Problem

The problem of the study was to determine how scores on the Kansas Personnel Division test for clerk-typist and clerk-stenographer compared on the basis of educational background. Other factors such as age, length of time since schooling was completed, and extent of related work experience were also taken into consideration.

Procedures

The study population consisted of all 1,911 individuals who took the state civil service test during 1972. Data were obtained from individual personnel application forms and test scores from the files of the Kansas Personnel Division in Topeka. Six hypotheses were subjected to various statistical tests, which included the following: analysis of variance, chi square, Pearson product-moment correlation, and analysis of covariance. These tests were applied at the .05 level of significance.

Findings

Based on the results of statistical tests applied to the hypotheses, the following conclusions were formed:

1. Educational background was highly related to scores on the general clerical ability section of the test, with college graduates scoring the highest. Individuals in the high school only and Manpower Development and Training categories scored the lowest.
2. On the typewriting section, graduates of proprietary business schools had the highest percentage passing the test. Graduates of area vocational-technical schools (AVTS) had the second highest percentage passing. Of those that passed the typewriting section, no significant differences in typewriting scores were revealed among graduates of proprietary schools, AVTS, or junior colleges.
3. On the shorthand section, graduates of proprietary business schools had the highest average scores. An analysis of variance revealed no significant differences among shorthand scores of individuals from proprietary schools, AVTS, or junior colleges.
4. Older individuals scored significantly lower than younger individuals on both general and shorthand sections. However, age was not a significant factor on the typewriting section.
5. Persons with six months or more work experience scored significantly higher than those without six months work experience on both general and typewriting sections. No significant relationship was found between work experience and shorthand scores.
6. Individuals who had been out of school longer scored significantly lower on both general and shorthand sections. No significant relationship was found between typewriting scores and years since schooling was completed.
7. Individuals who scored well on the general section tended to score well also on the shorthand and typewriting sections.

8. When the effects of general ability scores were statistically removed from typewriting scores and shorthand scores, graduates of proprietary business schools scored significantly higher than AVTS graduates in typewriting.

Implications

Over one third of the individuals who took the Kansas state civil service test for clerk-typist and clerk-stenographer during 1972 had received no education past the secondary level. Individuals in the high school only category scored lower than any other group except Manpower Development and Training on all three sections of the state test. These results may indicate a need for improving and expanding vocational office education programs in Kansas at the secondary level.

The results of the study also have implications for post-secondary vocational training. It appears that proprietary business schools are doing as well as or better than public post-secondary vocational office education programs as measured by scores of their graduates on the Kansas civil service test.

There are also implications for adult business education programs. Older persons should be encouraged to take refresher courses to upgrade and update their skills and knowledges. In stenography refresher courses, more emphasis should be placed on shorthand, spelling, grammar, and punctuation than on typewriting.

THE IDENTIFICATION OF TEACHER ATTITUDES RELATED TO CAREER EDUCATION AND ATTITUDINAL CHANGE AS A RESULT OF IN-SERVICE PREPARATION

Rask, Glen D.
Ph. D.

Kansas State University
1973

Statement of the Problem

This study was conducted to determine: (1) the relationship between selected variables which affect teacher attitudes toward career education, (2) the afore cited variables and career education categories, and (3) career education in-service preparation and teacher attitudes toward career education.

Methods and Procedures

The instrument utilized in the research, the Career Significance Study, was developed by the writer and pilot tested. When the split-halves test of reliability was applied, the instrument test yielded a correlation coefficient of .700.

Data was collected on the instrument from 176 elementary teachers of the cooperating schools in the Unified Schools Association for Vocational Education (U.S.A.V.E.) consortium. The instrument was administered as a pre-test to all participants prior to the beginning of in-service preparation and as a post-test immediately following the in-service preparation.

Two statistical treatments were applied to data collected. The stepwise regression was utilized to test the hypotheses: (1) There will be no significant relationship between identified teacher predictor variables and teacher attitudes toward career education; (2) There will be no significant relationship between predictor variables and attitudes toward career education categories. The t-test for two related samples was utilized to test the remaining hypothesis: There will be no significant change in teacher attitudes toward career education as a result of in-service preparation.

Findings

The stepwise regression analysis revealed a significant relationship did exist between teacher predictor variables of: years of teaching experience, number of siblings, recency of part-time work experience outside education, and in-service location. It further revealed significant relationships between teacher predictor variables and career education components. The t-test for two related samples revealed a significant change in attitude as a result of in-service preparation ($f=4.386$, $p .05$).

Conclusions

All three null hypotheses of the study were rejected. It was concluded that some teacher predictor variables are significantly related to both teacher attitudes toward career education and the categories of school role, community role, and career development. It was further concluded that a significant attitudinal change occurred through in-service preparation.

The investigator believes, as a result of the study findings, consideration in planning career education in-service preparation should include participant factors: years of teaching experience, recency of all work experience outside education, teaching grade level, number of siblings, and location of in-service preparation activities.

A COMPARISON OF THE ATTITUDES TOWARD OCCUPATIONAL
LEVELS OF STUDENT TEACHERS AT
KANSAS STATE UNIVERSITY

Rask, Michael Leroy
Ph. D.

Kansas State University
1974

This study was designed to determine if student teachers at Kansas State University who have completed the professional education block, including student teaching, have significantly differing attitudes toward occupational levels.

The sample selected was the student teachers completing the professional education block, including student teaching, fall semester 1973, at Kansas State University.

The research was done using a personal information sheet to gather subject history data and the Semantic Differential to measure attitude. The data collection was done during the closing conference for student teaching with a follow-up mail two weeks later.

The concentration groups for the purpose of the study were:

1. Elementary Education Student Teachers
2. Secondary Education Student Teachers
3. Vocational Secondary Student Teachers
4. Secondary Student Teachers in the Social Sciences and Arts
5. Math and Science Secondary Student Teachers
6. Secondary Vocational Agriculture Student Teachers
7. Secondary Vocational Home Economics Student Teachers
8. Secondary Physical Education Student Teachers
9. Secondary Student Teachers in the Social Sciences
10. Elementary Student Teachers in the Social Sciences and Special Education

11. All Vocational Student Teachers
12. All Non-Vocational Student Teachers
13. All Social Science Student Teachers

The personal information collected was analyzed by one-way analysis of variance and chi square analysis to determine if there was a significant difference at the .05 level ($p < .5$) in the items. The study showed that there were no significant differences between groups in personal information ($p > .05$).

Item and concept analysis was done on the Semantic Differential Evaluation Instrument. Analysis was done using the t-test procedure. The significance level used to determine if there was a difference between concentration groups was .05 ($p < .05$). The item analysis showed that 5 items had significantly different ($p > .05$) results, which clustered under the concepts Professional, Semi-Professional and Unskilled. The analysis by concept between concentration groups resulted in 7 concepts out of a possible 45 concepts, being significantly different at the .05 level.

A paired t-test on concepts within groups was done. It was found that the increasing numerical size of means from Professional through Semi-Professional to Skilled and Unskilled resulted in many significant differences ($p > .05$) in the analysis. Seventy-one percent (71%) of the paired concepts were found significant at the .001 level, nine percent (9%) fell between significance levels .001 and .01, eight percent (8%) fell between significance levels .01 and .05, leaving only eleven percent (11%) in the non-significant levels above .05 ($p < .05$).

If we accept the premise that an unbiased attitude toward occupational levels is necessary for teachers to present an unbiased look at the world of work, the following recommendation should be considered:

1. The teacher education program should consider altering their program to provide experiences which will create an attitudinal base which is unbiased concerning occupational levels.
2. The teacher education program should consider studying the effect of work experience, teaching experience, and sensitivity training on teachers' attitudes toward occupational levels.
3. The teacher education program should consider determining through research the best methods for altering teacher attitudes toward occupational levels.

INTERPRETATIONS OF THE 4-H CLUB PROGRAM AS EXPRESSED BY THIRD GRADE TEACHERS IN LEAVENWORTH COUNTY SCHOOLS

Rector, Ralph Bert
M. S.

Kansas State University
1971

Purpose

The purpose of the study was to describe the degree of educational value teachers attribute to certain aspects of the 4-H Club program, the orientation of those teachers toward the role of agencies outside the school in the total education of children, and to determine if any correlation existed between these two variables.

Objectives

The specific objectives of the study were:

1. To determine teachers' concept of 4-H member participation, in terms of the degree of educational value for children in each of the following aspects of the 4-H program: (a) Project work; (b) Local club meetings; (c) County 4-H Day; (d) County fairs; (e) 4-H TV Action and TV Science programs; (f) Camps.
2. To determine teachers' orientation with respect to the role (dominant vs. shared responsibility) of the school in the total education of children.
3. To determine if a relationship exists between teachers' orientation regarding the role of the school in the education of children and the degree of educational value placed upon each of the above named aspects of the 4-H program.

Procedure

The data were obtained by personal interview with twenty-two third grade teachers employed in public schools of Leavenworth County, Kansas. The subjects were asked to respond to ten questions dealing with the degree to which they felt the responsibility for the total education of children should be shared with other agencies. Responses were scored on a five point scale, five being "much" and zero being "none." The mean score of the ten responses was used as the independent variable.

The dependent variable was measured by a score on the same five point scale reflecting the degree of educational value for children attributed to each of six aspects of the 4-H program.

Pairing the response scores for the independent variable and the dependent variable for each subject, correlation scores were computed for each hypothesis using the Pearson Product Moment Correlation Coefficient.

Findings

The respondents varied a great deal in their knowledge of the 4-H program and attributed the most educational value to those aspects with which they were most familiar. They tended to think of 4-H as being more valuable for rural children than for children living in towns.

Mean response scores regarding the degree of educational value for children in each aspect of the 4-H program were: Project work, 3.50; Local Club Meetings, 3.18; County 4-H Day, 2.64; County Fairs, 3.32; TV Action and TV Science Programs, 2.53; and Camps, 2.95.

Mean response scores reflecting the degree to which teachers felt the responsibility for the education of children should be shared with agencies, other than the school, ranged from 2.7 to 3.8.

Boy Scouts and Girl Scouts, the church, the public library, summer recreation programs and 4-H were all seen by the respondents as important contributors in the total education of children. The teachers expressed concern about the diminishing influence of the church in working with children. There were some doubts expressed about the public library facilities meeting the needs of children, mostly in terms of accessibility. This seemed to particularly apply to the summer months. There was a definite opinion that current summer recreation programs did not meet the needs of enough children.

There was no significant correlation between the extent to which teachers believed the responsibility for the education of children should be shared and the degree of educational value they placed upon project work, local club meetings, county fair participation and camps.

Statistically significant correlation coefficients were found between the extent to which teachers believed the responsibility for the education of children should be shared and the degree of educational value they placed upon two aspects of 4-H which they were least familiar. The correlation coefficient in the case of 4-H Day participation was +.659. The correlation coefficient dealing with 4-H TV Action and TV Science Programs was -.663.

Implications

1. The lack of knowledge about some aspects of 4-H club work indicated by many teachers suggests a need to strengthen efforts toward an information program directed toward teachers and teacher candidates.

2. Greater emphasis needs to be placed upon 4-H programs for boys and girls living in urban areas.

3. A community effort toward making public library facilities more accessible to children was indicated.

4. 4-H programs may need to place greater emphasis on short-term summer activities for children not involved in other programs.

5. 4-H workers should make every effort to work with and help strengthen other youth serving agencies whenever possible, since all are seen as important in the total education of children.

AN ANALYSIS OF THE EDUCATION AND EMPLOYER'S
PERCEPTION OF ASSOCIATE, DIPLOMA, AND
BACCALAUREATE NURSES IN KANSAS

Reichow, Ronald W.
Ph. D.

Kansas State University
1974

The purpose of the study was to compare and evaluate the three pathways by which the academic requirements for becoming a professional nurse in Kansas can be met. Associate degree, diploma and baccalaureate degree nursing programs were examined with respect to difference in their curricula and students. The major employers of nurses in Kansas, the hospitals and nursing homes, were surveyed with regard to a comparative evaluation of their perception of recent nursing school graduates.

Returns from four of the seven associate degree programs, seven of the eight diploma programs which still had students, and three of the five baccalaureate degree programs provided the basis for the curricular and student comparisons. Diploma programs were found to require up to four times the amount of clinical/practical experience of associate degree programs and up to two and one-half times that of baccalaureate programs. The responses from 117 associate, 349 diploma and 113 baccalaureate students in the first year of their formal nursing programs revealed no significant differences in high school rank or in the amount or type of previous nursing experience. Significant differences were found in the amount of previous formal education and in the type of working environment sought upon graduation, though over three-fourths of the graduates of all programs indicated they would seek employment in either a hospital or doctor's office/

clinic. Forty-eight percent of the entering diploma students noted that they intended to continue their education towards a baccalaureate degree in nursing following graduation. In view of this finding, problems in articulation between diploma and baccalaureate programs were discussed.

A 74 percent return from the 166 hospitals in Kansas revealed significant differences in their perception of the work performance of the graduates of the three program types. The larger hospitals (one hundred beds and over) ranked diploma and baccalaureate nurses equal overall, while indicating that diploma nurses were significantly better in the areas of technical nursing and baccalaureate nurses superior in the leadership and administrative roles. Associate degree nurses consistently ranked second to both. The smaller hospitals ranked diploma, baccalaureate and associate degree nurses 1-2-3 respectively overall and tended to favor the diploma nurse in most of the nursing categories. Nevertheless, once hired, hospitals indicated that they paid all new nurses essentially the same salary and based promotions primarily on merit rather than educational preparation. The results of the returns from thirty-four intensive care nursing homes were in agreement with those of the smaller hospitals.

The study presents evidence that the practical experience provided in a nursing program is a significant factor in determining the beginning level work competency of its graduates. It was recommended that the collegiate schools supplement their programs with a three-month internship designed to provide meaningful work experience commensurate with that common to the diploma schools.

A STUDY OF THE ATTITUDES OF KANSAS INDUSTRIAL EDUCATION TEACHERS TOWARD PARTICIPATION IN INNOVATIVE CURRICULAR PROGRAMS

Renken, Garth H.
Ph. D.

Kansas State University
1974

The thesis of this study was that even with the increased number and variety of contemporary industrial arts programs now available, a serious gap exists between program development and actual acceptance and implementation of these programs into the classrooms. It seems evident that industrial educators will face an increasing amount of pressure to participate in curricular revision in order to keep their programs relevant to today's, and tomorrow's, needs. Participation in in-service activities presenting

innovative curriculum and methods will be increasingly necessary for teachers so they might be able to intelligently assess the relative values of new curricular innovations and to effectively implement the new programs that show promise.

The problem guiding this study was that sufficient research had not been conducted to assess the attitudes and the perceived change-situations of the industrial education teachers in Kansas which might determine the adoption of the available improved industrial education curriculums.

The objectives of this study were:

1. To review literature relating to current innovative curriculum in industrial education and some of the problems in the implementation of this new curriculum.
2. To ascertain the correlations of some of the factors relating to teacher receptiveness of educational change which represents new or innovative approaches to the industrial education curriculum.

The purpose of this study was to collect and analyze data relevant to the willingness of teachers to participate in adopting curriculum change in industrial education. A randomly selected sample of 100 industrial arts teachers from Kansas' senior and junior high schools were surveyed. The survey opinionnaire contained the following four parts:

1. In-service Participation Checklist
2. Short-form Dogmatism Scale
3. Change Factor Index
4. Demographic data

A Pearson product moment correlation coefficient matrix was obtained comparing all possible relationships between the three major criterion variables and 12 items of demographic information. In testing the seven hypotheses, the following relationships were statistically significant at the .05 level for the two-tailed test: school size and change factors; teaching area (traditional or innovative) and change factors; knowledge of new programs and change factors; number of innovative courses the teachers wanted to take and Dogmatism; teaching area and Dogmatism; age and in-service participation; and industrial work experience and in-service participation. No statistically significant correlations were found between the three criterion variables, themselves.

The one-way analysis of variance comparing each of the criterion variables with the 12 demographic variables produced five statistically

significant F-ratios at the .05 level. These significant F-ratios were between the following variables: In-service participation and age; Dogmatism and the number of innovative courses the respondents wanted to take; change factors and school size; change factors and teaching area; and change factors and the respondent's knowledge of the new programs.

The general conclusion from reviewing the literature for this study was that there is an abundance of material available to guide industrial education leaders in their efforts to implement change. The available material ranges from change procedures and the psychology of change to actual classroom materials for teaching the new industrial education courses which are included in the Kansas Model for Industrial Education.

This study indicated a majority of the teachers sampled desired courses in the innovative curricula along with a high desire to change their present program. With nearly half of the responding teachers having less than five years of teaching experience, it behooves the teacher educators to include the innovative curriculum courses in the undergraduate programs.

The major barriers to curricular change were indicated to be a lack of money, facilities, equipment and time.

Curricular change involves modifications of the attitudes, beliefs, feelings and habits of the teachers who implement changes.

ALTERNATIVE INSTRUCTIONAL APPROACHES TO FRESHMAN COMMUNICATIONS IN A COMMUNITY COLLEGE

Rice, Kathleen Roberts
Ph. D.

Kansas State University
1973

The purpose of this study was to determine if there was an significant difference in the improvement of basic communicative skills between students enrolled in the second semester of Freshman College English taught by the traditional classroom approach and students in the learning laboratory who received individualized instruction by the use of special diagnostic and corrective equipment.

Hypotheses

The following null hypotheses were tested: (1) There is no significant difference in the achievement of students in reading skills in Freshman

English taught by the traditional classroom approach and in the achievement of students in the learning laboratory who receive applied learning techniques, (2) There is no significant difference in the achievement of students in spelling in Freshman English taught by the traditional classroom approach and in the achievement of students in the learning laboratory who receive applied learning techniques, (3) There is no significant difference in the achievement of students in vocabulary in Freshman English taught by the traditional classroom approach and in the achievement of students in the learning laboratory who receive applied learning techniques, and (4) There is no significant difference in the achievement of students in writing in Freshman English taught by the traditional classroom approach and in the achievement of students in the learning laboratory who receive applied learning techniques.

Procedure

Data were collected from forty-six students enrolled in the Spring, 1973, semester of Freshman English at Independence (Kansas) Community Junior College. The selection of students was based on their performance during the first semester of Freshman English and on their ACT scores. These students were randomly divided into two groups; a control group which received traditional classroom instruction and a treatment group which was assigned to the Freshman English program with incorporated learning laboratory experiences. The two groups were then divided into three levels based on results of the pre-tests; with Level I representing the highest ability level and Level III the lowest.

Three evaluative instruments were used as pre and post-tests: the Reading Eye camera to evaluate reading, the in-class theme to evaluate vocabulary and writing, and the McGraw-Hill Basic Skills System Test to evaluate vocabulary and spelling. Data were subjected to the two-tailed t-test to determine if there was a significant change from pre to post-tests. The mean scores were analyzed by the analysis of variance to determine the significance of change by group, by levels within the group, and between experimental and control groups.

Findings and Conclusions

Level I of both the control and the treatment groups made the least significant gain of any level. The most significant gain was made by Levels III. The analysis of variance indicated that of the 16 variables used, the treatment group showed a significant increase over the control group on 15 of the 16 test parts. Therefore, the null hypotheses that there would be no significant differences were rejected, and it was concluded that community colleges could justify the establishment of learning laboratories which incorporate individualized instruction by the use of special diagnostic and corrective equipment with the basic concepts of Freshman English.

Recommendations

Further research, using a larger sampling and covering a two-semester time period, should be conducted.

Studies using different criteria, perhaps age and sex, might produce different implications for educators.

Results of studies conducted at the freshman level in a four-year college, or with adults, should be compared to results of studies conducted at the community college level.

Research to determine the relationship between the high attrition rate at the freshman level in community colleges and basic communicative skills deficiencies should be conducted.

A SEMANTIC DIFFERENTIAL STUDY OF THE ATTITUDE TOWARD OCCUPATIONAL EDUCATION AFTER EXPOSURE TO EXEMPLARY CONCEPTS

Riggs, Donald Dean
Ph. D.

Kansas State University
1971

The primary purpose of this study was to ascertain the change in attitude of selected educators toward Occupational Education after being exposed to exemplary concepts. Four hypotheses were used to ascertain the differences in meaning of selected education concepts.

1. There are no significant differences in the attitudes of the control groups and the experimental groups.
2. There is no significant change in selected educators' attitudes toward vocational education after being exposed to exemplary concepts.
3. There is no significant difference in the attitudes of the two experimental groups.
4. There is no significant difference in the attitudes of the two control groups.

The study was limited to two school systems in Kansas, both of which were involved in an exemplary program, over a period of one academic year. It was also limited to the meaning of thirty-six education concepts.

The semantic differential technique used in the study was administered on a pretest, posttest basis to the experimental groups in a class situation and the control group data was gathered by use of the local school mail.

The results of the study showed a definite rearrangement of academic and vocational concepts on the posttest from the rankings on the pretest.

The pretest and posttest both revealed measurable and statistically significant differences in meaning at the .05 level of significance for the vocational concepts within each of the four sample populations and differences in concept meaning between the four sample populations.

The findings of the study suggested that exposure to exemplary concepts through the Occupations Education course by the two experimental groups provided a better understanding of how vocational education could be integrated into the educational setting with academic offerings.

It was concluded that the semantic differential is an effective tool in measuring differences of education concepts and would be a useful tool for administrative use in the academic community to become aware of the differences in meaning of selected concepts.

It is recommended that a critical evaluation be given the instrument for future use in order to shorten it and eliminate some of the unnecessary distractors before being used by administrators and teacher educators as an evaluative tool in ascertaining differences in meaning of certain education concepts.

A COMPARATIVE ANALYSIS OF THE INDIVIDUALIZED GED INSTRUCTIONAL PROGRAM OF JUNEAU, ALASKA, TO THE TRADITIONAL GED INSTRUCTIONAL PROGRAM OF ANCHORAGE, ALASKA

Rogers, Samuel I.
Ph. D.

Kansas State University
1973

The purpose was to investigate the differences between the Traditional method and the Unipac method of instruction for the preparation of students for the GED High School Equivalency Test.

The study was limited to the program in Anchorage, Alaska, (Treatment 1) which utilized the Traditional method of instruction, while the second of Juneau (Treatment 2) used the Unipac method of instruction.

The following null hypotheses were tested:

1. There is no significant difference in the completion rate of the students in the two GED programs based upon sex and race of the students.
2. There is no significant difference between race, sex, and completion rate of the two programs based on the following variables of the students --age, highest grade completed before entering the GED program, the length of time out of school before entering the program, and the hours of time spent in the program.
3. There is no significant difference between the programs due to race and sex of the students based on the following adjusted variables of those students who completed the GED program--Mathematics, English Usage, Literature, Social Studies, and Science.

In testing the first hypothesis, no significant differences were found between sex and race on the program completion rate.

The second hypothesis indicated that the completion rate of Treatment 1 was significantly higher than Treatment 2. Both the males and females from Treatment 1 had a higher completion rate than the males and females in Treatment 2, and the males from Treatment 1 had a significantly higher completion rate than the females from Treatment 1. The males from Treatment 2 had a significantly higher completion rate than the females from Treatment 2.

In checking for significant differences in the GED subject test scores, it was found that the Caucasian students scored significantly higher than Native students in English Usage and Literature. The effects of sex on the various mean GED subject area scores indicated that significant differences existed in Literature and English Usage, the females scored significantly higher than the males in both programs. In testing the interactions of sex and English Usage between the programs, both the male and female students in Treatment 1 scored significantly higher than their counterparts in Treatment 2. Within the programs, in all cases, the females scored significantly higher in English Usage. In reviewing the effects of the treatments on Mathematics, controlling for sex, the females from Treatment 1 scored significantly higher than the females from Treatment 2, and the males in Treatment 2 scored significantly higher than the females from Treatment 2. All other comparisons on Mathematics and sex were non-significant. In examining the effects on the mean subject scores of the highest grade completed before entering the GED program, this variable contributed for significantly higher scores in English Usage. No effect was determined for the

other GED scores. In testing for the differences of time spent in the GED program, there was no significant difference for Math and Social Studies. All other areas showed significance.

The findings of this study suggested that although considerably more time was spent by the students in the Traditional program, the scores were consistently higher. Although there was no significant difference between the programs in the completion rate, both programs showed a significantly higher completion rate for males than females.

It was concluded that both programs have definite strengths and weaknesses, and that each treatment must be considered without losing sight of the purpose and objectives desired.

A STUDY OF THE RELATIONSHIP BETWEEN THE ATTITUDES TOWARD VOCATIONAL EDUCATION AND THE OPEN AND CLOSED MINDEDNESS OF KANSAS GUIDANCE COUNSELOR PERSONNEL

Rumbaugh, Welcome Arnold
Ph. D.

Kansas State University
1972

The thesis of this study has been directed toward the idea that attitudes maintained by Kansas high school counselors do contribute to their student's attitudes toward vocational education in the formative years when training should be taking place. The design of this study was developed around this idea in order to assess the attitudes toward vocational education of Kansas counselors, their open or closed mindedness and other demographic factors thought to be important by counselor educators and supervisors.

A research project designed to randomly sample 200 of the certified Kansas public high school counselors was implemented in the fall of 1971. Validation of the normality of the sample was obtained by using a technique called "error sampling," in which, an analysis of the two groups of returns from separate mailings showed no significant difference in the students' "t" test. Total number of returns proved to be 136 usable instrument forms. A normal population ratio of three males to each female counselor was maintained in the sample population.

A significant finding was obtained from a study of the relationship of the attitudes toward vocational education of the counselors in the study and their open mindedness.

The most influential of all the other demographic characteristics under study was revealed to be the sex of the counselor (females), and teaching field, together with the area in which they got their degree (academic).

Less significant factors proved to be the age of the counselor, years of experience, either in counseling or teaching, or both, and the months of summer or full-time work experience that the respondent held.

A test of significance between all of the independent variables as predictors of attitudes toward vocational education and a restricted model of predictor variables omitting the college or university where the counselors took their degrees failed to substantiate a significance at the .05 level.

Attitudes toward vocational education was determined by administering Engler's Scale developed at the University of Nebraska to determine the understanding that school administrators had of vocational education concepts. The Kansas high school counselors' mean scores on the ATVE Test compared favorably with the norms established for this test by Engler.

Randomly positioned in this survey instrument was a test for open or closed mindedness utilizing Rokeach's Dogmatism Scale. The counselors in this study had a higher mean score on the dogmatism test than the norms established for this test. Scoring was totaled separately for the two tests, with the ranges in scores varying from zero to 70 on the Attitudes Toward Vocational Education Test; and from zero to 113 on Rokeach's Dogmatism Scale.

Another phase of the study was the acquisition of demographic data on each participant, which experts in counseling and vocational education thought was important in influencing high school counselors' attitudes toward vocational education.

Further research is suggested in the area of directed work experiences as a way of increasing high school counselors' knowledge and attitudes toward vocational education programming. Additional research is justified in the realm of personal qualities related to the counselors' ability to influence students' transition from the self-concept they might have of themselves to their career goal.

The findings of this study should be of pertinent value to all educational planners, and should be considered when innovations in educational programs are being designed. It behooves these planners to be cognizant of all the factors that influence students, their choices, and their eventual program entry and exit.

FOODS AND NUTRITION UNIT TO MEET THE NEEDS
OF 7TH GRADE PUPILS AT RAYTOWN, MISSOURI

Ryerson, Joyce Lavaun
M. S.

Kansas State University
1969

Nutrition education involves motivating individuals to want to provide their bodies with the necessary food requirements in adequate amounts, and to practice basic health habits that augment the nutrition process.

Teenagers represent a segment of the population who exhibit the poorest eating habits. Among those teenagers existing on inadequate diets, girls appear to be the most poorly fed.

A major problem in motivating teenagers to want to improve their diets lies in breaking down the various types of barriers that prevent fluent communication. There is a need for the nutrition educator to develop improved methods of communicating the principles, facts, and attitudes that contribute to the practice of good nutrition.

The purposes of this study were (1) to develop and administer to 7th grade homemaking students a foods and nutrition pre-test and a questionnaire for recording daily dietary intake, and (2) to use the information obtained from the pre-test and dietary records to develop a foods and nutrition resource unit. The study has been limited to 7th grade homemaking students at Raytown South Junior High School, Raytown, Missouri.

The investigator identified the essential nutrients lacking in the diets of two groups of homemaking students by means of a questionnaire on daily dietary intake.

The pre-test, given to all 7th grade homemaking students, revealed that in most cases the students were lacking in knowledge of the essential nutrients, their function and sources in foods, and, in an understanding of the relationship between food, energy, and health.

Literature related to nutrition education, together with information acquired by evaluating the questionnaires and pre-tests, provided the basis for a resource unit in foods and nutrition for 7th grade.

The investigator recommended that the home economics teacher strive for improved skill and competence in interpreting, communicating, and evaluating nutritional data. It also was suggested that emphasis be placed upon developing new techniques for motivating teenagers to improve their eating habits.

A COMPARISON OF THE PERFORMANCE OF TWENTY-TWO STUDENTS
WHO DID AND TWENTY-TWO STUDENTS WHO DID NOT STUDY
VOCATIONAL AGRICULTURE NO. 9 AT THE DODGE
CITY SENIOR HIGH SCHOOL IN 1966-67

Schmitt, Gerald Henry
M.S.

Kansas State University
1972

The purpose of this study was to survey and compare the subsequent performance of the twenty-two students who did and the twenty-two students who did not study vocational agriculture no. 9 at the Dodge City Senior High School during the 1966-67 school year. Data was collected by the use of a questionnaire which contained fourteen questions which were answered by all the students who returned the questionnaire. Eight additional questions were answered only by the students who had the vocational agriculture no. 9 course. The questionnaire included information to determine the employment status, job satisfaction, adequacy of vocational agriculture education, continued education and factors which influenced their occupational selection. Each of the areas of the questionnaire were developed on a multiple choice selection basis. The student selected the answer that best fit his particular situation at the time the questionnaire was completed. The results were compiled in tabular form with the number and percentage of responses for each of the items. The percentages were used to compare the performance of the vo-ag students with the non vo-ag students.

Former students who had taken the vo-ag no. 9 course encouraged the largest percentage of the students to enroll. They were followed, in order, by the parents of the students, a brother that had taken vo-ag no. 9 and friends who had enrolled in the course. All twenty-two students of the vo-ag no. 9 course surveyed replied that they would recommend the course to their friends which indicated they felt they learned enough in the course to make it worthwhile for their friends to enroll. Eighty-two percent of the vo-ag students said they enrolled in vocational agriculture no. 9 because they were interested in agriculture and its related areas. The remaining 18 percent replied they enrolled because they were curious as to what the field of agriculture was all about. Fifty-four percent of the former ninth grade vo-ag students remained in the vo-ag program for a three year period, and 37 percent completed the four years of vocational agriculture offered at the Dodge City Senior High School.

The majority of the former vocational agriculture students stated that the training they received in the vo-ag no. 9 course was being used in their present jobs and they considered it useful to them in everyday living and community activities. Of the vo-ag students, 86.3 percent rated their vocational training as good to excellent in preparing them for their present

occupations. Of the twenty-two vo-ag students who were introduced to vocational training in the vo-ag no. 9 course, 54.5 percent continued with some type of vocational training in high school, whereas only 4.6 percent of the non vo-ag students received four years of vocational training. The vo-ag students had an average of four cents per hour more than the non vo-ag students in their beginning wage. When asked to list their present wage, the vo-ag students had an average of thirteen cents more per hour than the non vo-ag student, although both groups had wage increases the first year.

The results reported that the students in both groups were satisfied or highly satisfied with their present jobs. Each group had 77.2 percent of their present jobs one week after graduation from high school and slightly more than 50 percent of the students were employed in occupations that were the same as or closely related to the course work that was studied in high school. There were 45.4 percent of the non vo-ag students who had decided on their occupations before the junior year of high school, whereas only 18.2 percent of the vo-ag students had decided on their occupations by the junior year.

As a result of the study the author concluded that the students in both groups were rated nearly equal in the following areas: present employment status; satisfaction with present job; period between the end of school and the beginning of first job; relationship of present job to occupational course in high school. The vo-ag students had a higher rating in percent for the following areas: years of vocational course work in high school; quality of vocational training in preparation for job; beginning and ending hourly wage and considering their present job would they have enrolled in vo-ag no. 9. The non vo-ag students had a higher rating in percent for job security and for an earlier occupational choice. On the basis of three respondents the beginning and ending annual wages were higher for the non vo-ag students.

The author recommended that occupational education should begin by the ninth grade or sooner so the students can begin to select the courses that will best prepare them for their future occupations. Additional studies should be made to compare the value a student obtains from the vocational education courses in high school. The writer also recommended that every student should be encouraged to enroll in at least one vocational education course while in high school.

COMPARATIVE STUDY OF VOCATIONAL AGRICULTURE IV
CURRICULUM OF MULTI-TEACHER AND SINGLE
TEACHER DEPARTMENTS IN KANSAS

Schwintz, Larry Charles
M. S.

Kansas State University
1969

This study was designed to compare the differences and similarities of multi-teacher and single teacher Vocational Agriculture IV classes in Kansas. The main purpose of the study was to identify, through the use of a questionnaire, any difference which might exist in the course of study used in Vocational Agriculture IV classes in multi-teacher departments as compared with courses of study used in Vocational Agriculture IV classes in single teacher departments. The data gathered was limited to the information supplied by teachers of Vocational Agriculture in schools studied in response to a questionnaire mailed to them.

All multi-teacher departments, of which there were thirteen, were sent questionnaires, the envelopes being addressed to all of the teachers by name. To form the comparison group, the questionnaire was sent to two teachers from randomly selected single teacher departments in each of the North Central district, the East Central district, the South Central district, the Northeastern district, the Southeast district, and the Northwest district. One teacher from the Southwest district was randomly selected and sent a questionnaire. Thirteen teachers of single teacher departments were used as a comparison group. For this study the district with the smallest number of departments was allowed one department.

Teachers of multiple and single teacher Vocational Agriculture departments in Kansas reported the items and the number of hours of instruction in Vocational Agriculture IV. The study was designed to compare the responses of Vocational Agriculture teachers by averages and percentages. Returns were received from nine teachers of multi-teacher departments or 69.23 percent and ten teachers or 76.92 percent of the single-teacher departments. A total of nineteen or 73.07 percent of the twenty-six questionnaires mailed to the teachers were returned.

Teachers from multiple teacher departments who returned questionnaires indicated that they spent an average of 109.03 hours in class instruction as compared to participating single teacher department teachers who spent an average of 91.70 hours in class instruction. The most time spent in classroom instruction of multiple teacher departments was in farm credit and finance, 11.77 hours. Single teacher department teachers reported that they spent the most time of classroom instruction in farm accounts and records, 12.60 hours.

It was reported that teachers of single teacher departments spent 64.20 hours in agriculture mechanics instruction while the teachers of multiple teacher departments spent 90.28 hours. It was reported that teachers of multiple teacher departments and teachers of single teacher departments spent most of their hours in project work instruction, 40.80 hours and 59.86 hours.

Five of the nine multiple teachers, responding to the questionnaire, had adult farmer classes in 1968-1969 while there were no adult farmer classes held by the ten single teacher departments. Young farmer classes were held by four of the single teacher teacher departments responding while seven of the nine multiple teacher departments had young farmer classes during 1968-1969.

It was observed by the author of this report that most multi-teacher departments appear to allow for (1) more adult education in agriculture (2) more specialization by the teachers and (3) wider variation in subject matter content in Agriculture IV curriculum.

AN EXAMINATION OF COMPETENCY-BASED TEACHER EDUCATION
PROGRAMS IN SELECTED STATE COLLEGES AND UNIVERSITIES
WITH IMPLICATIONS FOR SOUTHERN UNIVERSITY
AT BATON ROUGE, LOUISIANA

Scott, Geraldine Yvette
Ph. D:

Kansas State University
1975

The purpose of this study has been to examine and assess the programmatic thrust of colleges and universities engaged in competency-based or performance-based teacher education programs in preparing teachers for public school instructional roles. More specifically, this study has sought to determine:

1. the degree and nature of the involvement of schools, universities, state departments of education, professional education organizations, community citizens and students in planning, designing, conducting, and evaluating the program.
2. the adaptability of readily available resources to competency-based teacher education programs.

3. the extent to which instruction is provided through: instructional modules, micro-teaching, simulations, systems analysis, video-tape, field-centered experiences, pre-professional laboratory experiences, and professional laboratory experiences.

4. the extent to which the teacher education staff engages in self-assessment--that is, the continuous process of diagnosing, treating, and evaluating their own professional practices.

This study followed a historical descriptive survey design in which ten randomly selected state teacher preparation institutions whose programs were identified as being potential resource centers for those interested in developing a competency-based teacher education program, were examined.

The investigator used the descriptive survey method in collecting data for this study. The data gathering device was the questionnaire and personal interview.

Conclusions

On the basis of the findings in this study, certain conclusions have been drawn pertinent to those findings which were relevant to the main objectives of this study. The following statements interpret major findings of the study:

1. Cooperative planning is systematically used in designing the competency-based or performance-based teacher education program.

2. Operating and maintaining a competency-based or performance-based teacher education program is more costly than traditional programs, but the cost of operating a competency-based or performance-based program is not as expensive as developing them.

3. Faculty-staff orientation for program usually constitute less than one year.

4. Programs moved systematically from structured courses to modularization.

5. Evaluative feedback of the program is most often provided through informal student reactions and responses provided by college and public school personnel.

6. Explicitly stated underlying assumptions have been formulated by most of the competency-based or performance-based teacher education institutions.

7. Many of the programs operate under procedures that are characteristic of traditional programs due to impositions of the institution and state requirements.

8. Most of the institutions' teacher education staff involved in the competency-based or performance-based teacher education programs engage in self-assessment practices for the purpose of program improvement.
9. Most of the institutions utilized a variety of sources in the process of identifying teacher competencies.
10. Most of the institutions have established instructional support systems which include learning resource centers and media laboratories.
11. Module banks have not been established in over fifty percent of the institutions.

A STUDY OF SELECTED PRIORITY ITEMS INVOLVED IN THE
MERGING OF A COMMUNITY JUNIOR COLLEGE AND AN
AREA VOCATIONAL-TECHNICAL SCHOOL IN KANSAS

Severance, Robert James, Jr.
Ph. D.

Kansas State University
1974

The purpose of the study was to ascertain the priorities needed by state educational planners, legislators, area vocational-technical school boards of control, community junior college boards of trustees, and administrators to merge an existing area vocational-technical school and an existing community junior college in Kansas. The study was prompted by the 1972 Master Planning Commission Report to the Kansas Legislature which contained a recommendation that seven pairs of community junior colleges and area vocational-technical schools in Kansas be merged into single institutions. This recommendation was part of the total recommended postsecondary plan for all of Kansas. The investigator had special interest in this study since he was the chief administrator of one of the area vocational-technical schools that was designated to be merged.

The review of selected literature was concerned with an overview of what the community college, as defined by the Master Planning Commission, was supposed to be. Probably the most important feature was that the community college was to serve the postsecondary needs for all the people in the district, not just those older youth who had recently graduated from high school. Educational pursuits included two-year transfer programs, two-year terminal programs, vocational-technical training and re-training, adult and

continuing education, and hobby and leisure time activities education. The community college tended to serve a wider range of students than did the four-year universities. Although the socioeconomic level of the community college student was lower than their four-year university counterparts, most authors agreed that postsecondary education was available to a greater number of people in the community college than any other institution.

To elicit opinions regarding the priorities needed in the process of merging an existing area vocational-technical school and an existing community junior college in Kansas, the investigator chose seven populations who were considered knowledgeable in this particular area. These populations included area vocational-technical school directors, area vocational-technical school board of control chairmen, community junior college presidents, community junior college board of trustee chairmen--all from the Master Planning Commission designated schools to be merged. Other populations included selected state education officials, selected members of the original Master Planning Commission and legislative members of the Education Sub-Committee on Master Planning. Input data was secured by the use of an opinionnaire that was constructed by the use of a Delphi committee. Opinions were secured from forty-five respondents (92 percent) on fifty-seven priorities using a five to one Likert-type scale. The individual priorities were assigned to ten subclasses which included philosophy, governance, finance, students, faculty, capital improvement, administration, curriculum, co-curricular activities, and community involvement.

Among the seven populations regarding the fifty-seven individual priorities, only nine priorities (16 percent) contained significant differences between the various populations. When the individual priorities were combined into subclasses, only one subclass--co-curricular activities--exhibited a significant difference between the seven populations. Regarding the importance of the individual priorities, the seven populations indicated rather high importance to the priorities in the subclasses curriculum, finance, governance, philosophy, and capital improvement while priorities in the subclasses faculty, students, co-curricular activities, administration and community involvement tended to be ranked of lesser importance. When area vocational-technical school directors and board of control chairmen were combined to form a single group, the community junior college presidents and board of trustee chairmen combined to form a second group, and the selected state education officials, members of the Master Planning Commission and legislators on the Education Sub-Committee on Master Planning combined to form a third group, there were no significant differences between the groups regarding the ten priority subclasses.

THE ROLE OF THE ADMINISTRATOR IN THE KANSAS COOPERATIVE EXTENSION SERVICE

Slusher, John P.
M. S.

Kansas State University
1969

Purpose and Procedure

The purpose of this study was to attempt to define more clearly the role of the Cooperative Extension administrator in Kansas. The role was examined in terms of thirteen major functions, identified from the literature, research studies, and personal experiences of Kansas Cooperative Extension personnel.

Role theory was used as the theoretical basis for the study. The data were collected by the use of a structured, mail questionnaire submitted to all Kansas Cooperative Extension Service administrators, district Extension supervisors, and specialists. Each respondent was asked to indicate his perception of the emphasis each function was receiving and how much emphasis it should receive. The functions were rated on a scale of one (lowest emphasis) to five (highest emphasis). The functions were then ranked by mean weighted score for each respondent group. Methods of analysis used were: rank difference, coefficient of correlation, and coefficient of concordance.

Results

1. The functions of the Kansas Cooperative Extension administrator, in their rank order of importance, as perceived by the total respondent group were:

Stimulating and motivating the staff

Delegating and allocating authority and responsibility

Recruiting and orienting his immediate staff

Establishing budgets and other formal arrangements

Formulating and defining the purposes and objectives of the organization

Coordinating the efforts of staff

Serving as a public relations person for Extension

Keeping up to date on pertinent new developments and research in the field of administration

Planning broad educational programs

Evaluating the quality and quantity of staff performance

Evaluating programs and progress made

Reporting program progress and accomplishments

Developing and maintaining the organizational arrangements

2. There was a general lack of agreement among the respondent groups concerning the emphasis that should be given the functions of the Cooperative Extension administrator in Kansas.

A general, but not high, agreement existed among the respondent groups regarding the relative amount of emphasis that was currently being given the functions by the administrators.

The greatest amount of disagreement was found between the administrators and district Extension supervisors. The highest agreement was between the specialists and supervisors.

3. The "should be" and "currently being" rankings of each group were compared to obtain an idea of how well the administrators were meeting the expectations of the groups. None of the "position" groups felt the proper emphasis was being given the proper functions.

4. There was a greater degree of consensus within respondent groups about the emphasis the selected administrative functions should be given than about the emphasis currently being given them.

5. The study indicated that the only variable having an important relationship to the respondents' rankings was that of educational degree held. There was disagreement between respondents with Ph. D. degrees and those with M. S. or B. S. degrees in their rankings by "should be" emphasis. There were no important associations between rankings and the variables of age, county experience, present position experience, induction training, and Extension education course work taken.

Recommendations

1. Further study should be undertaken to determine the viewpoints and expectations of the immediate "superiors" of the Kansas Cooperative Extension administrators to complete the expectations important to the definition of the administrator's role.

2. There should be some provision made for more open and effective communication between the respondent groups of the study.
3. The role of the administrator in the Kansas Cooperative Extension Service should be defined as completely as possible and included as a part of overall position description of the organization. It should also be included as a part of the induction training program.

A STUDY OF THE MOBILITY OF THE 1973 VOCATIONAL-
TECHNICAL GRADUATES OF THIRTEEN AREA
VOCATIONAL-TECHNICAL SCHOOLS

Snyder, John E.
Ph. D.

Kansas State University
1974

The purpose of this study was to determine the mobility patterns of graduates of vocational-technical programs.

The population examined in this study consisted of graduates from the area vocational-technical schools in Kansas who are placed in employment. The sample used consisted of 1972-73 school year graduates.

The data used for the study were obtained using the procedures developed by the Kansas Manpower Utilization System for Training Project. Special data processing procedures consisted of computing the distance from the training site to the job site for all placed graduates, keypunching this data, merging the keypunched data with enrollment data from the Master Student File in the Kansas Student Accounting System. A new file was formed from the combined data which included age, race, sex, community in which training occurred, level of training, and miles traveled to obtain employment. The new file was used in a five-way analysis of variance with miles traveled as the dependent variable and each of the other factors orthogonalized against each other. The resulting F-Ratio were used to examine the hypotheses tested in this study.

As a result of the tests of the hypotheses concerning the mobility of vocational-technical graduates, it was concluded that there is no statistically significant difference in mobility patterns of graduates because of age, race, and sex.

The results of the tests of the hypotheses concerning level of training show there was a statistically significant difference between the distance technical program graduates travel to obtain related employment and the distance vocational program graduates travel to obtain related employment. It was concluded that technical program graduates travel further to obtain related employment than vocational program graduates.

The results of the tests of the hypotheses concerning the community in which a student is trained indicate that there is a statistically significant difference in the distance graduates from different schools travel to obtain related employment. It was concluded that graduates from smaller communities travel further than graduates from larger communities.

It was concluded from the study that statewide manpower data should be used for the planning base for vocational-technical program approval in Kansas.

DISCRIMINATION INDICATORS IN COOPERATIVE VOCATIONAL EDUCATION PROGRAMS IN KANSAS AREA VOCATIONAL-TECHNICAL SCHOOLS

Staley, Dale E.
Ph. D.

Kansas State University
1974

Statement of the Problem

This study attempted to answer the question, "Is there discrimination by race, sex, and/or age in cooperative vocational education programs conducted for the fourteen Kansas Area Vocational-Technical Schools using the hours worked and wages earned by student trainees as indicators.

Methods and Procedures

The population involved in this study consisted of all students enrolled in cooperative vocational education in the Kansas Area Vocational-Technical Schools during the 1972-73 school year. The sample, which in this study was the population was the total enrollment of 1494 cooperative vocational education students. The data was collected as a normal function of the Kansas Student Accounting System under the auspices of the Kansas State Department of Education and the Kansas Manpower Utilization System for Training staff. Exceptions in the processing of data involved a hand search of all Completion

Cards to locate cards relating to cooperative students, punching salary and hours data on the cards, generating a deck from the master file containing data on all variables being analyzed, and developing a software package to generate a least squares analysis of variance for the data. A five-way analysis of variance was used to analyze each interrelated independent variable independently with the dependent variable.

Findings

Older cooperative vocational students worked fewer hours and earned greater annual salaries than younger students. Male students tended to earn greater annual salaries than female students. Further, white students worked more hours than non-white students. A reasonable conclusion from these findings is that age and sex discrimination occurred in cooperative vocational education when considering wages earned and that race and age discrimination occurred when considering hours worked.

The affect of school location and/or program type is also an important factor relating to the salaries earned and hours worked by cooperative vocational education students in Kansas Area Vocational-Technical Schools.

ECONOMIC CONCEPTS RELEVANT TO THE COUNTY EXTENSION AGRICULTURAL AGENT IN IMPLEMENTING EDUCATIONAL CHANGE

Stroade, Richard D.
M. S.

Kansas State University
1971

The purpose of this study was to identify some of the major economic concepts, which would be useful to the county extension agricultural agent in carrying out the county extension program.

This study was exploratory and descriptive. To the writer's knowledge there has not previously been a study made of economic concepts involving county extension agricultural agents. There have, however, been a number of studies made investigating the concept approach both for extension education as well as for other uses.

Data was compiled from a questionnaire, which was sent to all Kansas county extension agricultural agents, farm management fieldmen, district

extension economists, other extension economists, agricultural economists on the teaching and research staff at Kansas State University, and district extension supervisors.

Twenty-five economic concepts were included in the questionnaire. Of the 156 questionnaires sent, 129 (82.7 percent) were returned. All respondents were asked to rate these concepts as to their degree of importance and to rank the five concepts, which they felt were the most important.

Respondents were broken down according to present position, number of years since respondents received his bachelors degree, highest degree held, undergraduate major and masters major.

At least four of the position groups agreed that the following concepts were in the top ten most important to the county extension agricultural agent: "goal, resource allocation, fixed costs, diminishing returns, opportunity costs, comparative advantage, marginal rate of substitution and market structure." When considering the highest degree held by the respondent all respondents agreed that the concepts, "diminishing returns, fixed costs, resource allocation, and goal," were among the ten highest rated concepts.

Generally the concepts, which received a high rank also received a high rating.

Two of the most important objectives of this study were to develop a list of economic concepts useful to the county extension agricultural agent and to determine which concepts are the most useful to the county extension agricultural agent. The writer feels that this study has definitely indicated that certain concepts are considered important by the various respondent groups. Six of the concepts are: "resource allocation, goal, firm-household relationships, diminishing returns, fixed costs, and pure interest rates."

The writer hopes that these concepts will prove useful in the training of extension agents in Kansas.

AN ASSESSMENT OF STAFF DEVELOPMENT NEEDS OF ADULT EDUCATION PROGRAMS IN KANSAS

Sumner, Jack Allan
Ph. D.

Kansas State University
1973

The purpose of this study was to assess the staff development needs of adult education programs in the state of Kansas.

Methods and Procedures

A total number of 318 staff members were surveyed in the 40 administrative centers in the state, their respective satellite programs and GED testing centers. The instrument in this study was developed on the basis of evaluative information needed as it concerns staff development. The instrument was developed in consideration of the importance of subject areas, teaching method of interest, non-teaching areas of interest, teacher-student relationships, background of staff members educational needs and preferences in terms of length and time, college credit for in-service activities, including continuing education units, experienced based activities and delineation of needs by specific clustered geographical location. The study of staff development needs also took into consideration the primary job of respondents in adult education programs in Kansas.

The instrument was developed after a review of the literature, consultation with Kansas State University adult education faculty and Region VII staff development personnel, and validated by a nationwide panel of experts utilizing the Delphi Technique.

The instrument was provided all program locations through the cooperation and sanction of the Kansas State Department of Education--Adult Education Section. This was accomplished through correspondence as well as personal contact, in addition to follow-up support.

The statistical procedure used to analyze the data included a cross tabulation of variables, a Pearson product-moment correlation, a Chi-square goodness of fit and a varimax factor analysis.

Results

Three of the four null hypotheses were rejected. The hypotheses of relationship between location and job and subject areas, methods, non-teaching areas and teacher-student relationships were rejected. The hypothesis of relationship between subject areas, method, non-teaching areas, teacher-student relationships and a set of seven selected variables

was rejected. The hypothesis of relationship between respondents' learning experiences and a set of seven selected variables was retained. The educational needs were determined to be in eleven specific areas of expressed importance. Backgrounds of respondents were compiled in terms of primary job, age, employer, sex, length of time in program, other adult education experience, education level attained, "other" full time position, possession of teaching certificate and location of respondents by six geographical clusters. In addition, an evaluation was made of learning experiences, respondents' preferences and requirements for learning activities and related program needs by cluster location.

Conclusion

Staff members of the adult education programs surveyed responded positively toward four specific subject areas, five specific non-teaching and method interest areas and two areas in the category of teacher-student relationships.

The responses in terms of location and primary job indicate that there are significant differences and needs in consideration of the respondents' geographical location, job and specific variables. In addition, the results indicate that there are other considerations in terms of length, time, types of involvement by staff members, backgrounds and responses to preferences for college credit.

Recommendations

Additional study is recommended for locations and specific areas related to in-service and staff development considerations, as well as the backgrounds and learning experiences of the staff members of the 40 Kansas programs. Further research should be directed to matters involving the relationship of local programs to the community and associated institutions or entities. Traditional educational concepts as they relate to local programs should also be examined as well as roles and relationships of staff members and the operation of programs.

SELECTING OCCUPATIONAL CLUSTERS FOR LOCAL SECONDARY SCHOOL SYSTEMS IN BRAZIL

Tavares, Carlos A.
Ph. D.

Kansas State University
1974

The primary purpose of the study was to demonstrate a procedure to select occupational clusters for the curricula of local secondary school systems in Brazil.

Twenty occupational clusters were identified to be evaluated by students and a group of experts under two criterion variables, student's interests and employment opportunities at the local, micro-regional and state levels.

The criteria developed to select the occupational clusters included (1) vocational interests of students, (2) employment opportunities at the local level, (3) at the micro-regional level, (4) at the state level and (5) geographic mobility of students as related to sex, grade, age, intention after graduation and work status of students.

Six research questions were raised to test the criteria. It was found that all five criteria presented significant statistical results.

The study included 2,303 students enrolled in grades 8, 9, 10 and 11 in three selected school systems in the state of Pernambuco that served as the scope of the study.

The data were collected through the use of two instruments. One for collecting data from students about their interests in each of the 20 occupational clusters and on several descriptive variables. The other instrument was administered to a group of experts at the local and state levels for evaluating employment opportunities in each of the 20 occupational clusters.

The data were analyzed using the t-test for related samples, the analysis of variance with the Tukey High Significant Difference (HSD) procedure and the Chi Square statistics.

The occupational clusters which best "fitted" student's interests and employment opportunities at the local, micro-regional and state levels in each of the three selected school systems were: Clusters 01 - Social service, education, teaching; 03 - Nurse work, work in hospitals, health centers, etc.; and 05 - Accounting, statistics, clerical work, bank services, etc. for the school systems of Nazare da Mata and Caruaru; and, clusters

01, 03, 05 (above), 12 - Commerce, buying and selling of materials and products; and 13 - Electrical installations, electronics, telecommunications, for the school system of Petrolina.

Geographic mobility, based upon student's intention as to where to migrate, was also examined. Sex, grade, age, plans upon graduation and work status of students were found to be related.

AN EXPERIMENTAL APPROACH TO TEACHING BASIC COMMUNICATIVE SKILLS TO VOCATIONAL AND NON-VOCATIONAL STUDENTS

Taylor, Richard Marvin
Ph. D.

Kansas State University
1973

The purpose of this study was to ascertain if there was any significant difference in the teaching of basic communicative skills by the traditional classroom approach or by the integration of these skills into the students' vocational objectives. This experiment was conducted during the 1971-72 school year at four Area Vocational-Technical Schools and one Community Junior College in Kansas.

Hypotheses

The following null hypotheses were tested: (1) There is no significant difference in the achievement of reading skills between a group of vocational students who received integrated instruction and a similar group of non-vocational students who received traditional classroom instruction, (3) There is no significant difference in the achievement of vocabulary skills between a group of vocational students who received integrated instruction and a similar group of non-vocational students who received traditional classroom instruction, (4) There is no significant difference in the achievement of study skills between a group of vocational students who received integrated instruction and a similar group of non-vocational students who received traditional classroom instruction.

Procedure

Data was collected from 152 post-high school students at four area vocational-technical schools (AVTS) and from 52 post-high school students enrolled in six semester hours of freshman communications at a community junior college in Kansas. Forms A and B of the McGraw-Hill Basic Skills

System Test were used as the pre- and post-tests. Vocational students were administered two semesters of integrated communicative skills while the non-vocational control group received instruction in the traditional communication classes. Data was subjected to analysis of variance and t-test of related samples.

Findings and Conclusions

Although the non-vocational control group began and ended the experiment with a higher mean score than that of the vocational experimental groups, the experimental groups gained significantly from pre-test to post-test while the control group did not.

Integrated communicative skills were taught to vocational students with a more significant rate of gain than communicative skills which were taught to non-vocational students by traditional methods.

The Vocational Related Skills group began with an above average pre-test score and finished with the most significant gain of any experimental group.

The vocational groups were slightly lower than the non-vocational group on the pre-test, but this difference was decreased to a non-significant level by the completion of the study.

Recommendations

Further research, to reveal more effective methods of instructing communicative skills, should be conducted.

Studies related to realistic teacher qualifications necessary to cope with the problems of teaching communicative skills in vocational and academic settings at the post-high level are needed.

A follow-up study on the students in the present study might reveal their degree of success in their chosen occupations.

The attitude of instructors and administrators toward the need for offering integrated communicative skills to vocational students might reveal implications that would assist educators in developing curricular offerings.

THE USE OF INDEPENDENT STUDY IN KANSAS HIGH SCHOOL PRODUCTION AGRICULTURE COURSES

Thorne, Henry Foxall
M. S.

Kansas State University
1974

The purpose of this study was to determine (a) to what extent independent study was being used in production agriculture courses in Kansas vocational agriculture programs, (b) in what forms it was being used, (c) reasons why it was not more widely used, and (d) suggestions for the expansion of independent study.

Information for this study was gathered from twenty eight responses to a questionnaire mailed to thirty nine randomly selected Kansas vocational agriculture instructors. The questionnaire, containing thirty seven items, included questions covering seven areas: (a) personal and school background, (b) starting an independent study program, (c) types of independent study programs in use, (d) methods of assisting students using independent study, (e) opinions about independent study, (f) why independent study is used more often in agriculture mechanics than production agriculture courses, and (g) what assistance would be of the greatest help towards increasing the use of independent study.

The responses to the questionnaires were tabulated into two groups: those instructors who used independent study and those who did not use independent study.

The findings indicated that 54% (15 of 28 responses) of the instructors responding to the survey used independent study. The most commonly used (11 of 15 responses) method of independent study was unscheduled time where students studied on their own for credit. This indicated that while more than half of the instructors used independent study, a small percentage of their students actually learned by this method of learning during regular classes.

It was found that the greatest reason for the limited use of independent study, according to 50% of the instructors who used, and 100% of the instructors that did not use independent study, was a lack of information concerning the methodology of independent study. This lack of information was indicated by another response which illustrated that 50% of the instructors who used independent study did not have assistance in setting up their own programs. This indicated that many of the independent study programs in use were not as high quality as they could have been had more information been available.

The findings also revealed several suggestions from the instructors for improving the use of independent study. Sixty eight percent of all instructors responding to the question (17 of 25 responses) of what assistance they would like to have from the State Department of Education indicated they would like to have either programmed study guides, general guidelines or examples of independent study materials.

It was recommended that for the improvement of independent study programs, information on the methodology and types of independent study programs available to Kansas vocational agriculture instructors be disseminated to all instructors.

Also, in-service training in the development and use of independent study programs should be expanded at Kansas State University to include more vocational agriculture instructors than at present.

A final recommendation was to develop small independent study packages covering a lesson plan of no more than three or four days for a production agriculture course and distribute them to pre-selected instructors who indicated an interest in using them. Information would be gathered on the results of their use.

OCCUPATIONAL MATURITY OF EDUCABLE MENTALLY RETARDED STUDENTS

Tinney, Gladys R. Foris
Ph. D.

Kansas State University
1973

The purpose of this study was to determine the career maturity development of educable mentally retarded students, and to investigate the relationship of sex, ethnic origin, chronological age, mental age, vocational training, grade level, and intelligence quotient as independent variables.

The Career Maturity Inventory Attitude Scale (CMIAS) was administered to a stratified random sample of 90 educable mentally retarded students in the Wichita Public High Schools. The Peabody Picture Vocabulary Test was administered to the same students to obtain a mental age.

There were seven hypotheses tested in order to investigate the career maturity development of the subjects. Null hypotheses were formed and were tested by use of t-test, Pearson product moment formula, and one-way

analysis of variance. These statistics were used to determine the relationship of the independent variables (sex, race, ethnic group, vocational training, chronological age, mental age, and intelligence quotient) to the dependent variable (total score on the Career Maturity Inventory Attitude Scale).

There was no significant difference found between the total score on the CMIAS when compared with each of five independent variables (sex, grade, vocational training, mental age, and ethnic group). However, there was a significant relationship detected when total scores of CMIAS were compared with intelligence quotient and chronological age.

When the grade means of the norm groups were compared with the grade means of the educable mentally retarded subjects of this study, it was found that educable mentally retarded subjects scored significantly lower than the norm groups in all grades.

It was concluded that the general trend of results found in this study followed the general trend of the results obtained with the norm groups for standardization of the CMIAS test, but with a lower mean. Even though the CMIAS was not designed specifically for educable mentally retarded students, it seems plausible that the test could be useful with further research.

THE RELATIONSHIP OF SELECTED CHARACTERISTICS OF AIDES IN THE KANSAS COOPERATIVE EXTENSION SERVICE TO THEIR ROLE SUCCESS

Triplett, Clyde Merlin
Ph. D.

Kansas State University
1972

The Expanded Food and Nutrition Education Program is operated by the Cooperative Extension Service. It is a federally financed program designed to teach basic nutrition to low income families. A unique characteristic of this program is the use of paraprofessional aides in the teaching role.

A weakness of the program's operation has been the lack of valid criteria for selecting aides or predicting their role performance.

A review of research relating to the prediction of successful role performance helped to identify five purposes for this investigation:

1. To examine the relationship of various temperament traits to role success.
2. To examine the relationship of certain attitudes of aides to their role success.
3. To examine the relationship of aide's self-esteem and self-acceptance to role success.
4. To determine the effect of five biographical variables--age, race, tenure, place of residence, and education--on the criterion variable (role success).
5. To determine the relationship of combinations of the independent variables to role success.

The theoretical framework led to the selection of instruments to measure the characteristics of the aides. They were:

1. The Guilford-Zimmerman Temperament Survey.
2. The Wrightsman Philosophy of Life Attitude Survey.
3. The Self-Esteem Scale developed by Rosenberg.
4. The Self-Acceptance Scale of the California Psychological Inventory.

The population consisted of fifty-nine female aides employed by the Kansas Cooperative Extension Service and serving as aides in the Expanded Nutrition Program in thirteen Kansas counties. This was the entire population of aides with over three months' tenure.

Questions were recorded on a tape recorder. The investigator gathered the data by personally administering the taped surveys in thirteen small group sessions during April and May, 1971.

Sub-scales of the four instruments plus the five biographical variables made up the twenty-one predictor variables. The dependent variable was role success and this was quantified by having each aide supervisor complete an instrument designed to evaluate the aide's performance. The data were processed through the Computer Center at Kansas State University. Pearson product moment correlations and multiple correlations, utilizing a step-wise multiple regression program, were the major statistics used to test the hypotheses.

Hypotheses were stated in the null form. General Hypothesis I hypothesized no relationship between the independent variables and the criterion. Null sub-hypotheses were indicated for each of the twenty-one independent variables. They stated no relationship between role success and: biographical variables--age, race, tenure, place of residence, and education; temperament traits--general activity, restraint, ascendance, sociability, emotional stability, objectivity, friendliness, thoughtfulness, personal relations, and masculinity; attitude dimensions--trustworthiness, altruism, independence, and strength of will; self-esteem; and self-acceptance. Only two of the sub-hypotheses--education and emotional stability--were rejected at the .05 level. Since only two of the twenty-one predictors were related to role success, General Hypothesis I was retained.

General Hypothesis II stated no relationship between combinations of predictors and role success. A step-wise multiple regression program produced a three-predictor regression model which identified combinations of variables effective in accounting for a significant portion of the criterion variance. Therefore, General Hypothesis II was rejected. It was concluded that the three-predictor multiple regression equation, utilizing the variables education, emotional stability, and friendliness, was effective in predicting the role performance of the population. The relatively low multiple correlation produced by the equation revealed that it was not highly accurate in predicting the criterion. The greatest value of the model was in predicting the extremes. A table showing the gross errors--those predicted high scorers who actually scored low or predicted low scorers who scored high--using the model produced only one error.

THE RELATIONSHIP BETWEEN THE EFFECTS OF A CAREER EDUCATION TEACHER INSERVICE PREPARATION PROGRAM AND THE CAREER AWARENESS OF UPPER ELEMENTARY SCHOOL STUDENTS

Vallejo, Myles Edmund
Ph. D.

Kansas State University
1975

Statement of the Problem

The purpose of this study was to determine whether upper elementary school students who were under the supervision of teachers who had completed career education inservice preparation had increased their career awareness more than pupils who were under the supervision of teachers who had not participated in any career education inservice preparation.

The major question to be answered in this study was whether or not the career education inservice preparation of elementary school teachers made any difference in the career awareness of their students.

Hypotheses

In each of the three grades that the study was conducted, the operational null hypothesis developed from the questions to be answered stated: There is no significant difference among the composite scores of experimental treatment students whose teachers participated in career education inservice preparation workshops and the composite scores of control treatment students whose teachers did not participate in career education teacher inservice preparation workshops as measured by the Cornell Career Awareness Inventory.

Methods and Procedures

Three separate analyses were conducted, one for the fourth grade, one for the fifth grade, and one for the sixth grade. Two treatment groups for each grade, experimental and control, were selected from intact classes on a post hoc basis to participate in the study. There was a total of sixteen self-contained, randomly selected classes, providing a total N of 379, that were chosen for the experimental groups. Eighteen randomly selected, self-contained classes totaling 430 subjects took part in the study as control groups.

The research instrument used was the Cornell Career Awareness Inventory which identified seven areas of career awareness. The criterion measure and dependent variable utilized was the total composite score derived from the seven subtest scale scores.

The three hypotheses, one for each grade level, were analyzed separately by submitting the data to a nested factor, unequal subclass analysis of variance design in order to control statistically for extraneous, unaccounted for variability. In the analyses each grade level consisted of one dimension with two treatment levels, the experimental treatment group and the control treatment group. The different classes from each grade were nested under either the experimental treatment level or the control treatment level depending upon whether the class' teacher was part of the experimental group or the control group.

Results

The null hypotheses for the fourth and fifth grades were retained. The F-ratios of .745 and .529 respectively yielded by the analyses were not statistically significant at the selected .05 level. The null hypothesis for the sixth grade was rejected with the analysis yielding a significant

F-value of 17.531, within the selected area of rejection at the .05 level of significance, but in favor of the control group.

Conclusions

Students in the fourth and fifth grades involved in the study who were under the supervision of teachers who had completed the career education inservice preparation program showed no significant difference in career awareness as measured by the Cornell Career Awareness Inventory compared with those control students in the fourth and fifth grades who were under the supervision of teachers who had not participated in inservice preparation workshops. There was no positive relationship between career education teacher inservice preparation and the career awareness of upper elementary pupils in any of the three grades as measured by the Cornell Career Awareness Inventory. There was a negative relationship in the sixth grade between career education teacher inservice preparation and the career awareness of sixth grade pupils.

A STUDY OF THE UPGRADING INTERESTS OF KANSAS PRINTING PLANT MANAGERS

Vequist, David George
Ph. D.

Kansas State University
1973

The purpose of this study was to evaluate the upgrading interests of Kansas printing plant managers in the areas of plant administration, production management and printing technology.

Hypotheses

The following null hypotheses were set forth as major expectancies: (1) There are no correlations between managers' willingness to travel and expressed interest in upgrading topics, personal background or plant characteristics; (2) there are no correlations between expressed interests of managers among interest topics; (3) there is no correlation between the urban or rural plants and managers' expressed upgrading interests or plant characteristics; (4) there are no correlations between the letterpress or offset plants and managers' expressed upgrading interests, plant characteristics or managers' willingness to travel; (5) there are no correlations between the plant products or plant processes and managers' expressed upgrading interests; (6) there is no significant relationship

between managers' designated interest in the areas of plant administration, production management and printing technology; (7) there is no relationship between letterpress or offset plants and managers' designated interest in the areas of plant administration, production management and printing technology; (8) there is no correlation between managers' personal backgrounds and their evaluation of upgrading programs; (9) there is no relationship between the urban or rural plants and number of employees in the plants.

Procedure

Data was collected from 200 managers of printing plants in Kansas on a combined demographic and topical interest questionnaire, using Likert-type scales as developed through Delphi procedures.

Data was subjected to tabulation, multiple correlation and Chi-square tests for independence.

Findings and Conclusions

1. Managers reported the following: a mean age of 45.5 years and mean experience of 13.9 years; an average education beyond high school with completion of some college or technical courses; seventy-nine percent were willing to travel an average 162 miles, one way, to attend programs.
2. Managers' plants were characterized by the following: 67 percent were offset and 30 percent were letterpress, with 35.4 average employees per plant. Forty percent of the major products were newspapers and 25 percent were litho commercial printing.
3. Managers expressed greatest upgrading interest in the topics: sales, plant training, plant layout, employees, cost, quality control, work measurement, materials, supervision, inventory, copy preparation, composition, photographic and film assembly.
4. Significant relationships were found between managers' willingness to travel and their expressed interest in upgrading topics.
5. All topics were related within each of the three interest areas: plant administration, production management and printing technology.
6. The urban plant was related with the interest topic, Labor, while the rural plant was related to the product, Newspapers.
7. Offset plants related to interests in printing technology while letterpress plants related to minor specialized products.
8. Urban-Rural and Letterpress-Offset plant designations were significantly independent.

9. Offset plants were significantly correlated with managers' expressed interests for upgrading in the three topical areas. A lack of interest in upgrading is evident for older managers of letterpress plants.

10. No significant correlations were found between managers' willingness to travel and either letterpress or offset plants.

Recommendations

Adult educational programs for printing managers should be founded on upgrading topics in which they express greatest interest.

The planning and development of programs should consider locations as dependent on managers' willingness to travel and attend the programs.

A generalized instrument should be developed to measure upgrading interests for administrative personnel throughout industry.

A STUDY OF THE ATTITUDES OF KANSAS SUPERINTENDENTS OF SCHOOLS TOWARD ADULT EDUCATION

Verschelden, Robert J.
Ph. D.

Kansas State University
1973

The study was an assessment of the attitudes of selected Kansas Superintendents of Schools toward adult education programs with the purpose of determining significant relationships between their attitude and various demographic factors such as age, size of district, courses taken in adult education, classes taught in adult education, hindrances to generating programs, and number of years as a superintendent.

An attempt was also made to indicate certain factors that will assist those concerned with adult education as to the status and priorities listed by Kansas superintendents.

The investigator attempted to sample fifty percent of all superintendents in the state of Kansas for the 1973 school year. Ninety-eight percent of the superintendents randomly selected for the study responded to the attitude questionnaire instrument.

The null hypothesis was subjected to statistical tests designed to either affirm or disprove the assumption. The hypothesis stated that there was no significant relationship between the predictor variables of age, size of district, courses taken in adult education, classes taught in adult education, hindrances to generating adult programs, and the number of years as a superintendent, and the criterion variable of attitude toward adult education.

Based on the results of an analysis and interpretation of the correlations between the predictor and criterion variables, the following conclusions were drawn:

1. The age of the superintendent has no significant effect on the superintendent's attitude toward adult education.
2. The number of years as a superintendent has no significant effect on the superintendent's attitude toward adult education.
3. Courses taken in adult education by the superintendent had no significant effect upon his attitude toward adult education.
4. Classes in adult education taught by the superintendent had no significant effect on his attitude toward adult education.
5. The size of the superintendent's school district had no significant effect on his attitude toward adult education.

The correlation between the superintendent's attitude toward adult education and his stated hindrances to generating adult education programs in the district also had no significant correlation.

The study does reveal some interesting results. For example, hindrances to generating adult education programs because of lack of interest, low population and poor public support were stated by fifty-four superintendents. Since over sixty-percent of the Kansas districts have a school population of less than a thousand students, it reaffirms the assumption that there might not be a sufficient demand of adult education programs in many rural districts.

There are some definite incongruities relating to the superintendent's attitude and his priority in funding adult programs. When stated that most adult evening courses are too expensive, 103 of the 153 superintendents disagreed with the statement; however, when asked to rate the adult programs on a priority of funding basis, a low rating was given in four out of the five types of adult programs.

In view of the findings it appears that the low priority given adult education is due to financial constraints within the school district. The

above average attitude toward adult programs and the low funding priorities leads this researcher to recommend other than local sources for financial assistance to promoting and generating adult education programs at the district level. Leadership for promoting adult education will need to come from sources other than the superintendent, who gives his allegiance to elementary and secondary education.

The concept of statewide funding must be adopted by legislation to adequately support programs by furnishing the necessary personnel in the State Department of Education to provide the needed service to local districts.

INDIVIDUAL INSTRUCTION FOR EMPLOYEES OF COMMERCIAL FERTILIZER DISTRIBUTION AND COMBINE MAINTENANCE AND ADJUSTMENT AT THE VALLEY HEIGHTS HIGH SCHOOL

Weiser, Donald P.
M. S.

Kansas State University
1972

This study was designed to compare individualized and conventional group instructional methods for the preparation of personnel for employment in Commercial Fertilizer Distribution and Combine Maintenance and Adjustment areas of agricultural related occupations. Two individualized programmed manuals were developed with the assistance of Dr. James Albracht and Professor Paul Stevenson, both of Kansas State University. The manuals were in the areas of Commercial Fertilizer Distribution and Combine Maintenance and Adjustment.

Two groups consisting of the vocational agriculture III and the vocational agriculture IV class members were used, neither of which had studied in the two areas, and each group was involved in both methods of teaching. The teaching methods were reversed for the two groups in the second part of the study on Combine Maintenance and Adjustment.

Information concerning the background and abilities of the vocational agriculture III and the vocational agriculture IV class members was tabulated into six areas. The six areas were Verbal I. Q., Mechanical Aptitude Percentile, Overall Grade Point Average, Vocational Agriculture Grade Point Average, Biology Grade, and Size of the Home Farm. It was found there was little difference in the average scores between the two groups in background and abilities except in mechanical aptitude average percentile

and in the size of the home farm. The vocational agriculture IV class members had an average test score of 65 percentile and the vocational agriculture III class members had an average test score of 37.50 percentile. The vocational agriculture III class members came from farms averaging 591.6 acres and the vocational agriculture IV class members came from farms averaging 461.6 acres.

A pre-test of fifty objective type questions was administered to each class member to measure the entry level of knowledge in each of the two areas. A post-test of the same fifty objective type questions was administered to each class member to measure the level of knowledge at the end of forty hours of instruction in each study area. The average scores and the average differences were then determined.

The first part of the study which compared teaching methods was in the area of Commercial Fertilizer Distribution. The vocational agriculture III class members used the individualized method of instruction and the vocational agriculture IV class members were taught with conventional methods of group instruction for the allotted forty hours. The average difference in the gain in the tests scores at the end of this unit was a 1.17 more for the vocational agriculture IV class members who were taught by conventional methods of group instruction.

The second part of the study compared teaching methods in the area of Combine Maintenance and Adjustment. The two groups were reversed with the vocational agriculture IV class members participating in the individualized method of instruction and the vocational agriculture III class members involved in the conventional group method. The average difference in the gain in the test scores at the end of this unit was 1.16 higher for the vocational agriculture III class members who had conventional group instruction. The results of the study indicated that there was little difference between the two teaching methods used in this study.

Since the results of this study indicated that individualized instruction was about equal to conventional group instruction in test score accomplishment then it appears that either method would be satisfactory for instruction in agricultural related occupations. If the occupational objectives of the class members differ then individualized instruction might be more suitable while a group with similar occupational objectives might have their objectives met better by conventional group instruction. The conventional group instruction was found to be slightly better in this study.

It was recommended that further studies be made of the individualized instructional materials which are available and similar types of studies should be made. It was further recommended that more individualized and group instructional materials be developed in agricultural related occupations.

The results of this study appeared to have implications for teacher education and curriculum planning. If individual objectives are identified and adequate programmed materials are available, successful instruction for agricultural related occupations should occur. As few individualized and group instructional materials appeared to be developed for classroom utilization, the instructor should be able to develop his own individualized and group instructional materials.

A COMPARISON STUDY OF THE EDUCATIONAL AND CAREER
BACKGROUND, ATTITUDES, WORK ACTIVITIES, DUTIES
AND RESPONSIBILITIES OF THE CHIEF ADMINISTRATOR
OF OCCUPATIONAL PROGRAMS IN PUBLIC JUNIOR
COLLEGES AS PERCEIVED BY DIRECTORS
IN REGION VII

Whelchel, Richard F.
Ph. D.

Kansas State University
1973

Purpose

The purpose of this study was to compare the educational and career backgrounds, attitudes, work experiences, and duties and responsibilities of the chief administrator of occupational programs in Region VII with those obtained in a 1966 national study to determine whether there was any change in these areas over a seven year period of time. A secondary purpose was to determine whether normative results might be obtained in order that community colleges in Region VII might use the information in hiring personnel in this category.

Method of Research

All of the 59 public junior colleges in Region VII contained in the 1970 Junior College Directory were invited to participate in the survey. The study was limited to including those chief administrators who spent 50 percent or more of their time in the administration of vocational-technical education programs in their respective colleges. There were 54 of the 59 institutions that responded to the questionnaire for a return of 91.6 percent. Of the 54 chief administrators, 27 of them spent 50 percent or more of their time in the administration of vocational-technical programs.

Summary

The summary indicates the areas in which the results compared favorably with Fielding's 1966 study. The second part will indicate the areas in which the results differed.

1. The directors did have similar experience in business.
2. The administrative duties more frequently performed by directors were: evaluating instructional programs, orienting new teachers, speaking to lay or professional groups, assisting in the recruitment of instructors, serving as a consultant in the development of course and program objectives, maintaining contacts with business and industry and working with advisory committees.
3. The chief administrators of this study and the 1966 study agreed that the largest concentration of graduate hours was needed in the organization and administration of vocational-technical education, curriculum construction and principles and philosophy of vocational-technical education. The directors in this study indicated that the area of graduate course work needed was in the area of college administration.
4. Both studies indicated that the directors agreed that experience in business and industry was of the most importance in the preparation of directors.
5. Ninety-six of 162 directors (59 percent) reported directly to the chief administrator; whereas, 17 of 26 (65 percent) reported directly to the chief administrative official in the current study. Sixty-two percent of the chief administrators in the 1966 study and 65 percent in this study reported at the first level in the administrative organization.

The areas in which the results differed were:

1. The principal source of personnel for the position in the 1966 study was junior college teaching. The principal source in this study was from junior college administration.
2. In the 1966 study, 150 of the 162 chief administrators held bachelors degrees and 127 of the 162 held masters degrees. All of the 27 chief administrators in the current study held both a bachelors and masters degree.
3. All 27 of the directors in this study had previous administrative experience before they obtained their present position; whereas, only 75 percent of the directors were in this category in the 1966 study.

Recommendations

Colleges and universities offering programs for the preparation of administrators should examine the results of this study. A master's program should contain major areas of study in administration, curriculum and the development of programs.

The junior college, in hiring a chief administrator of vocational-technical programs, should look for an individual who has background experience in business and industry and with a master's degree with work in administration and vocational education. It would also be desirable that this person have teaching experience at the junior college level and previous administrative experience at some level of education. The administrator hired must have a firm commitment to vocational-technical education.

It is recommended that a study be made to determine where the chief administrator of occupational programs in public junior colleges fits into the administrative structure at their respective institutions and how these findings might influence their duties and responsibilities.

FUTURE EXTENSION PROGRAM EMPHASIS AS PERCEIVED BY RURAL AND URBAN EXECUTIVE BOARD MEMBERS

Wilson, Jack H.
M. D.

Kansas State University
1969

The purpose of this study was to determine the emphasis that should be placed on the Cooperative Extension programs in the future relative to urban areas as compared to rural areas.

The participants were representative of the Extension Executive Boards in the area delineated as urban and selected rural counties of Kansas. Questionnaires designed to measure attitude were filled out by executive board members. The questionnaire consisted of a face data sheet designed to secure information about participants including rural or urban, sex, area of representation, source of income and gross income. The second sheet included program areas with the degree of emphasis, large increase, moderate increase, same, moderate decrease, and large decrease.

The data were presented in the form of tables and were analyzed by mean weighted scores and testing null hypothesis by using chi-square.

In general all the respondents indicated that Extension should provide the same amount of effort or decrease its efforts in leadership development, community resource development, youth and family life development, farm and home management, use and conservation of natural resources, agricultural production, marketing and distribution and international development. There were some who recommended a large increase in community resource development, youth and family life development, marketing and distribution and international programs, but those respondents represented a small number of the people tested.

The recommendation to decrease efforts in all program areas was general and was not tied to any specific variable tested. Significant differences were found in some areas recommending "same" or "decrease" in program emphasis.

Although there were some significant differences at the .05 level in leadership development between urban and rural, area of representation, and source of income, the large differences occurred in those areas recommending "same" or "decrease" in future program emphasis. There was no large differences between large increase and moderate increase in any of the areas tested.

There was significant difference at the .05 level in community resource development between rural and urban, sex, area of representation, source of income and gross income.

In family living and youth work significant differences at the .05 level was found between rural and urban, sex, area of representation, source of income and gross income.

Significant difference at the .05 level was found in management of farm and home between rural and urban, sex, source of income and gross income.

Significant difference at the .05 level on conservation and development of resources was evident between urban and rural, and source of income.

In agricultural production significant difference was found between sex, area of representation, and source of income.

Significant difference in marketing and distribution was evident at the .05 level between urban and rural, sex, and level of income.

Significant difference on international programs was found between urban and rural, sex, area of representation, and source of income.

Further studies are needed to find out why people who have program determination in a county feel that a decrease in effort is needed in all program areas.

The implication from this study demands that administration attempt to uncover reasons for these recommendations made by those people responsible for final program determination.

A COMPARISON OF THE RELATIVE POWER AND ROBUSTNESS OF
MANN-WHITNEY, KRUSKAL-WALLIS, AND ANALYSIS OF
VARIANCE TESTS EMPLOYING DISCRETE SCORE
POINT SCALES COMMON TO
EDUCATIONAL RESEARCH

Woods, Donaldson Grier
Ph. D.

Kansas State University
1972

The study employed a Monte Carlo strategy to compare the relative power and robustness of Mann-Whitney, Kruskal-Wallis (chi-square approximation), and analysis of variance tests utilizing discrete score point scales common to educational research. The Kruskal-Wallis test was examined with and without a tie correction factor.

Test statistics were operated upon by discrete approximations to normal and uniform distributions, where scores were restricted to the integers 1 to 99, 1 to 20, 1 to 10, and 1 to 5. Discrete score points 1 to 99 were used to approximate the continuous case, while score point scales 1 to 20, 1 to 10, and 1 to 5 were representative of classroom test grade dispersion, attitudinal scales, and questionnaire analyses.

A pseudo-random number generator produced independent samples which then were transformed into both normal and uniform approximations of natural numbers that corresponded to the four designated score point scales. On alternate passes through the programming system one discrete sample was shifted by a prescribed amount so that test statistics could be evaluated under both true and false hypotheses.

Discrete data set transformations to normal and uniform approximations were delivered to routines for Mann-Whitney, Kruskal-Wallis, and analysis of variance tests. Rank order translations were carried out for Mann-Whitney and Kruskal-Wallis statistics, with tied observations being

resolved by the midranks method. F-test ratios were calculated directly from discrete score points as derived above. Calculated values for Mann-Whitney, Kruskal-Wallis, and analysis of variance tests were compared to appropriate tabled entries at five and one percent significance levels, and rejection totals were accumulated for each test under true and false hypotheses.

Five thousand independent data sets were generated for each sample size configuration. Sample sizes considered were (10, 10), (20, 20), (10, 20), (10, 30), (10, 10, 10), (20, 20, 20), and (30, 30, 30). The Mann-Whitney programming segment was bypassed for three-sample cases.

Findings demonstrated that the Mann-Whitney test was sufficiently robust and possessed adequate relative power to be reliable for score point scales as discrete as 1 to 10 under both normal and uniform approximations. It was pointed out that the Kruskal-Wallis statistic should be augmented by the tie correction factor under conditions of discreteness. The Kruskal-Wallis test with tie correction exhibited adequate robustness and relative power to be used by educators with score points as discrete as 1 to 5 for normal and uniform approximations. The recommendation was made that the Kruskal-Wallis test with tie correction is to be preferred by educators to the Mann-Whitney statistic under conditions of increasing discreteness.

The analysis of variance was robust and returned findings of sufficient relative power to be suitable for appropriate research designs at all four discrete score point scales. The difference in relative power between the F-test and the rank order tests investigated was minimal, except at one percent significance level when sample sizes were small and data sets were very discrete. Under these conditions the analysis of variance demonstrated greater relative power than its nonparametric alternatives.

The Kruskal-Wallis test with tie correction proved to be an excellent alternative statistic for the analysis of variance under conditions of discreteness. In those circumstances where application of the analysis of variance is questionable due to suspected violation of other assumptions underlying the test, the educator was advised to employ the Kruskal-Wallis test with tie correction.

A COMPARISON OF THE EFFECTIVENESS OF FOUR UNITS OF INSTRUCTION FOR PESTICIDE CERTIFICATION IN KANSAS

Zahr Dennis Gilbert
M. S.

Kansas State University
1973

Since the passage of the Kansas Pesticide Users Law, (1970) educators were called on to provide training for various groups who chose to become qualified to apply pesticides in Kansas after January 1, 1973. The purpose of the study was to compare and evaluate units of instructional materials available in Kansas to educate pesticide applicators for state certification and licensing.

This created a need for identification of competencies for pesticide applicators. It seemed logical to the writer that if the competencies required to license pesticide applicators were determined and the units of instructional material evaluated, the results would establish the guidelines for the present and future pesticide applicator certification. The guidelines would help in updating, arranging and utilizing the units of instructional material in agricultural curriculums to better prepare agriculturists for future pesticide involvement.

The range of applicator personnel requiring certification encompassed people of different ages, different educational levels and different occupational experiences. Four groups were used in the comparison of the four different units of instructional material. The research population was obtained by random sampling and included four groups of fifteen each that used the four different units of instructional materials.

The study was limited to a twelve month period and included only students from the Liberal Area Vocational and Technical School (LAVTS) that used the four different units of instructional materials. The units were (1) Study Guides by the Weed and Pesticide Division of the Kansas State Department of Agriculture, (2) Kansas Pesticide Users Handbook by the Kansas Extension Service, (3) Agricultural Chemicals Special, and (4) Agricultural Chemical Regular. The three and four units of materials were developed by the LAVTS instructors of Agricultural Chemicals, Kenneth Schuster and his assistant, the writer of the report.

Upon completion of the study, the research population was given an examination developed by the Weed and Pesticide Division of Kansas State Department. The examination was over the competencies which were required of pesticide applicators. The examination was confidential to the KSDA. The scores of the research population were reported according to the correct responses.

The findings indicated that there was little difference in the averages of the examination scores between the four groups. An analysis was made to determine which areas needed strengthening within the four units of instructional materials. A difference was observed by the writer in the attitude and desire which individuals had in the certification program.

The total test average for the four groups using four different instructional materials was 88.3% with students using KSDA material having an average of 86.3%, Extension material 88.2%, LAVTS Special material 87.0%, and LAVTS Regular material 88.0%. Since it was the observation of the writer that the ability level of the students in the four groups using the four different instructional materials was nearly equal it was concluded that each of the materials were satisfactory for the instruction of agricultural chemical applicators.

The results of the data convinced the writer that studies can do much to inform educators of the validity of their instructional materials. The four groups tested demonstrated the importance of the role of formal education for the certification of future pesticide applicators.

UNIVERSITY OF KANSAS
Lawrence, Kansas

THE RELATIONSHIP OF DOMINANT VALUES TO OCCUPATIONAL PRESTIGE RANKING

Abdallah, William P.
M. S.

University of Kansas
1970

Occupational prestige research indicates that the occupational prestige structure of the United States has remained remarkably stable for the last 45 years. There is a consensus on the occupational prestige structure despite differences in the sociological and psychological characteristics of the respondents as well as in their criteria for ranking.

Social scientists, in general, have treated occupational prestige as an unidimensional variable. Limited research (e. g., Osgood and Stragner, Garbin and Bates) and the variability in occupational prestige ranking indicate that occupational prestige is a multidimensional concept, i. e., people use various criteria in assigning occupational prestige rank.

There has been no research on the relation of people's values to occupational prestige. It seemed likely that values might importantly influence occupational prestige ranking. To test this notion, this study investigated how people with different dominant values ranked occupations according to prestige.

Dominant value was measured by the Allport, Vernon, and Lindzey Study of Values. Occupational prestige ranking consisted of rating 44 jobs on a five point scale from "excellent standing" to "poor standing." Dominant economic and theoretical values were chosen to study. Forty-two upper-class males, at the University of Kansas, were subjects. The Mann-Whitney U was used to test if there was a significant difference in the overall prestige rankings of the 44 jobs between the dominant economic and theoretical groups. No significant difference was found. To test for difference in the occupational prestige ratings for individual occupations, the Kolmogorov-Smirnov two sample test was applied to each of the 44 pairs of occupations. Only "owner of a factory employing 100 people" and "physical therapist" were rated significantly different by the economic and theoretical groups.

Although the results of this study indicate that values have no significant influence on the prestige ranking of occupations, it does not necessarily imply that no relationship exists between them. The writer thinks that the problem of clarifying the relationship is complicated by treating occupational prestige as an unidimensional variable. If one were able to isolate the criteria people use in prestige ranking occupations, the relationship between them and various psychological and sociological variables could be clarified.

Further research investigating the criteria that people use in ranking occupations on prestige is recommended. Once the meaning of occupational prestige is established, it will be a more relevant and useful construct.

Conclusions

There is no difference in the prestige rankings of occupations for people with dominant economic or theoretical values. This finding points in the direction that occupational prestige is a construct that exists independent from the particular social and psychological characteristics of the raters. The writer feels that the relationship of these characteristics to the concept, occupational prestige, is obscured by treating occupational prestige as an unidimensional variable. The results have not clarified the nature of the construct but pointed out its vagueness. This will be discussed further in the next section.

There is no difference in the prestige ratings of individual occupations between the economic and theoretical groups, except for two occupations, "physical therapist" and "factory owner." Even considering each occupation individually, dominant values seem unrelated to occupational prestige. The significant difference in the ratings for "physical therapist" and for "factory owner" by the two groups does not seem explainable in terms of a value difference alone. Certainly the similar occupational prestige ratings for the same occupations by both groups is not understandable considering only their different dominant value orientation. Perhaps each group is using several criteria of occupational prestige, besides dominant values. Each may even be using its own criteria and obtaining similar occupational prestige rankings.

Limitations

Perhaps the greatest limitation of the study is dealing with occupational prestige without knowing its dimensions, i.e., constituent criteria. This is a problem because it is difficult to interpret whatever relationship exists between values and such a global concept as occupational prestige. However, the study was designed to help clarify this.

Using only college students as subjects limits generalizing the results to other than student populations. It is very appropriately applied to

students as even the list of occupations rated was adapted especially for them. The general finding of this study that values do not seem to influence occupational prestige is applicable to females. There seems no reason to suspect that the relationship between values and occupational prestige is different for men and women. Past research (e.g., North-Hatt) shows no significant differences in the occupational prestige rankings of men and women.

PROGRAMMED SELF-INSTRUCTIONAL LEARNING IN ART AS APPLIED TO CERAMICS

Bartel, Marvin Percy
Ed. D.

University of Kansas
1970

Statement of the Problem

While programmed self-instructional learning has been extensively employed in several subject-matter areas, teachers in the visual arts have had little opportunity to use this methodology. It was felt that there were a number of ways in which programmed learning might be appropriately and effectively employed in the visual arts. One of the most obvious applications appeared to be in the area of technical knowledge in those areas in which success is contingent upon such knowledge. Hence, the research was designed to compare the effectiveness of programmed self-instructional learning with the effectiveness of traditional methodology used with beginning college ceramics students.

Procedure

Two programs were prepared which were felt to be representative of the types of content in ceramics which could readily be programmed. They were entitled Clay: A Programmed Study of the Types and Properties of Clay, and How it is Formulated for Pottery, and Stacking and Firing: A Programmed Study of the Principles and Practice of Stacking and Firing Pottery Kilns. Five college ceramics teachers in four midwest schools used the programs in beginning ceramics classes. The same teachers employed the lecture method to teach the same topics in an equal number of other beginning ceramics classes. While class time was used for the lectures, the programs were worked outside of class. Post-tests administered at the end of the course were used as the criterion measure. Additionally, the students' cumulative college grade point averages and/or

American College Testing Program composite standard scores were employed as controls for differences in academic ability. Using these measures, analysis of covariance was used to test the hypothesis of no difference in post-test knowledge when comparing program group results with lecture group results.

Findings

The hypothesis of no difference was tested for the groups of each of the five teachers, and in each case the criterion mean of the program group was found to differ from the criterion mean of the lecture group with the difference being consistently beyond the .01 level of statistical significance. Examination of the criterion means after adjustment for academic ability differences indicated that the program groups consistently outperformed the lecture groups. On the average, the adjusted criterion means indicated that the five program groups learned about twice as much as the five lecture groups in this study.

Conclusions

Based on the findings of this study it is concluded that evidence has been found to indicate that programmed self-instructional learning can be an effective method in beginning college ceramics classes. Since the difference in favor of the program groups was consistent in each of the five comparisons, and since the difference was statistically significant beyond the 99 percent level of confidence in each of the five tests of the hypothesis, it is concluded that the results could be generalized to other beginning ceramics classes at the college level.

Implications for Additional Research

Since programmed self-instruction can be used outside of class, questions could be postulated regarding the best use of teacher and student classtime. Secondly, although no side effects were detected in this study, the question of possible confounding side effects relative to programmed learning in the visual arts needs additional clarification. Finally, research relative to programmed learning is needed in other parts of the art curriculum, in programming other types of art knowledge, and in the use of programmed learning with students at other age levels.

THE EFFECT OF MEDIA ON THE CONNOTATIVE MEANING OF CLIENT PROBLEMS

Baum, Dale Delbert
Ed. D.

University of Kansas
1970

The purposes of the investigation were to determine the differential impressions of client emotional and educational/vocational problems which were perceived by subjects over three different media and over two different orientations to the task. The three media included audio, typescript, and audio video. The two orientations to the task included providing or not providing diagnostic information concerning each client's problem prior to the subjects perceiving and rating the problems.

Three groups of junior and senior students preparing to become teachers served as subjects. Forty subjects each were randomly assigned to each of the three media groups. One-half of the subjects comprising each media group were randomly provided with diagnostic information concerning each client's problem. The subjects rated each of five initial interviews of clients depicting emotional problems and each of five initial interviews of clients portraying educational/vocational problems on a nine scale form of the semantic differential.

The design employed in the study was a 3 X 2 X 2 factorial with equal replications, with fixed effects, and with repeated measures. The major problems posed by this investigation may be summarized as follows:

1. Will subjects form different impressions of client problems as a function of the media over which they perceive the problems?
2. Will subjects who are provided with expert diagnostic information concerning each client form impressions of client problems differently from subjects who receive no expert diagnostic information?
3. Will subjects form different impressions between emotional and educational/vocational problems?
4. Will there be interaction effects between media and orientation of the subjects?
5. Will there be interaction effects between media and types of client problems?
6. Will there be interaction effects between orientation of the subjects and types of client problems?

7. Will there be interaction effects among media and orientation of the subjects and types of client problems?

Three null hypotheses were stated for each of the above research questions, one for each of the three factors of the semantic differential, i.e., evaluation, potency, and activity.

Analyses of the data provided evidence for rejection of four of the hypotheses. Significant differences were found among the three media groups in the impressions formed of client problems on the evaluation factor of the semantic differential. Both the Audio and Audio Video Groups perceived client problems as significantly (.05) less negative than the Typescript Group. Also, differences significant beyond the .01 level were found between emotional problems and educational/vocational problems on all three factors of the semantic differential.

The findings and conclusions of this study may be summarized as follows:

1. The audio and audio video presentations of client interviews evoked significantly less negative connotative meanings of client problems than the typescript presentations of client interviews.

2. There were no significant differences in connotative meaning between subjects who were and subjects who were not provided with prior diagnostic information concerning each client's problem.

3. Emotional problems and educational/vocational problems evoked significantly different (.01) connotative meanings on all three factors of the semantic differential. Emotional problems were perceived as significantly more negative on the evaluation factor and as significantly more potent and more active than educational/vocational problems on the potency and activity factors, respectively.

4. There were no significant interaction effects between or among the variables investigated. It was concluded that each of the three variables and their respective levels functioned independently of each of the other variables and their respective levels within the limitations of this study.

5. Analysis of the data obtained from an additional "validation" group supports the conclusion that "client problem" exists as a variable both measurable and independent of the stimulus variable "client".

EDUCATIONAL CHOICE AND ASSOCIATED ATTITUDINAL
DIFFERENCES OF VOCATIONAL AND NON-VOCATIONAL
HIGH SCHOOL JUNIORS

Boettcher, Patricia A.
M. S.

University of Kansas
1973

Currently, America is in a vocational education explosion. Many theories and much research, particularly that of the vocational psychologists such as Super and Roe, have relevance for vocational education and this study. However, research studying the receiver of this education ---the student--- is almost nonexistent. In fact, no research dealing with the attitudinal differences between students which may affect their educational decisions was found. This study was done in an attempt to create some literature upon this topic. What the students think may have a direct influence upon the success or failure of the vocational-education concept.

The purpose of this study was to discover if attitudinal differences exist between non-college-bound high school juniors who after the 10th grade elected to attend a vocational school and non-college-bound high school juniors who after the 10th grade elected to attend a traditional high school. Although there are an innumerable number of attitudes which may have affected this educational choice, this study was limited to an investigation of six. These were: (1) the definiteness of future goals, (2) the influence of significant others upon occupational choice, (3) the importance of status, (4) attitudes toward coursework, (5) anticipatory attitudes toward school, and (6) differential extracurricular activity participation.

To assess these attitudinal differences, a questionnaire was devised and administered to three groups of subjects. The subjects in Group I were 89 E. H. O. V. E. (the vocational school) students. The high school students were divided into two groups. Group II contained 65 vocationally-oriented high school students and Group III 77 non-vocationally-oriented high school students. The chi square test of homogeneity was used to analyze the 13 Null Hypotheses. When a significant response difference was indicated, further investigation followed with Scheffe's post-hoc analysis. The advantages and disadvantages listed by the subjects were tabulated and converted to percentages.

The results showed that some attitudinal differences did exist between the three groups of students as well as between males and females. Null Hypotheses 2, 3, 4, 5, 7, 8 and 12 were rejected while Null Hypotheses 1, 6, 9, 10, 11 and 13 were accepted.

Conclusions

The major conclusion of this study was that some attitudinal differences do exist between Groups I, II, and III as well as between males and females. More specifically, the main conclusions are numbered and listed below.

1. Length of time spent in present town schools seemed to not be an issue affecting educational choice. The inclusion of this issue in the study stemmed from the fact that currently American society is so very mobile. As stated previously, it was thought that the "new" students would be more apt to leave the community high schools than the "old" students. In other words, those who had been "uprooted" before wouldn't mind transferring to a different school since (1) they would have fewer close attachments, and/or (2) they were used to moving. However, the results of the study did not provide any evidence for this theorizing.

2. A significant difference in definiteness of future work plans was found between the three groups. More specifically, it appeared that the E. H. O. V. E. students had more definite future plans than the vocationally-oriented high school students. Why a similar, or even larger, difference was not found between Group I-V. S. and Group III-N. V. is not understood.

3. A significant difference in definiteness of future plans was also found between males and females. Although the exact area of difference was not statistically revealed, examination of the data suggested that the males were more definite about their future plans and the females more confused.

4. A significant difference was found between Groups I, II, and III concerning the influence of others upon educational choice. The students in Group I-V. S., more so than those in Group II-V. O. and Group III-N. V., tended to make their own educational decisions and to make them for practical educational reasons. The students in Group III-N. V. reflected more confusion and/or apathy about their educational decisions than did the students in Group I-V. S.

A seeming disparity exists between this last conclusion and that stated in number 2 above. Although the students in Group III-N. V. expressed more confusion about their educational decision than the students in Group I-V. S., no significant response difference concerning definiteness of future plans was found between the two groups. More generally, this implies that a connection between educational and occupational plans does not always exist. Just because an individual is definite about his educational plans does not mean that he is absolutely definite about his occupational plans, and just because an individual is confused about his educational plans does not mean that he is confused about his occupational plans.

5. A significant response difference was revealed between males and females regarding the influence of others upon educational choice. More males than females made their own decisions and made them for practical educational reasons. Of course, the reverse of the preceeding is that more females than males were influenced by others when making the educational decision. It has been hypothesized that females are much more dependent upon their peers and cliques, and this may be one of the contributing influences in their educational decisions.

6. For Groups I, II, and III the status attributed to attending one school or the other did not appear to be an issue affecting educational choice.

7. However, males and females did differ significantly on the importance of status. More males than females chose the alternative which, although disparaging to E. H. O. V. E. students, is said to be reality. More females, maybe because they are generally more concerned with status, did not choose the socially endorsed alternative.

8. A significant difference was found between Groups I, II, and III regarding attitudes towards coursework. More specifically, the differences were between Group I-V. S. and Group III-N. V. More E. H. O. V. E. students than non-vocationally-oriented high school students were interested in learning a job skill in school. And, more non-vocationally-oriented high school students than E. H. O. V. E. students indicated a negative attitude toward coursework. It seems that although the non-vocationally oriented students differ significantly from the E. H. O. V. E. students on the desire to learn job skills, they aren't pleased with what they are learning. The question can arise as to how meaningful to them is the more liberal education. Since they don't appear to be satisfied with this liberal education, what would the non-vocationally-oriented students find meaningful and desirable?

9. Attitudes toward coursework did not differ significantly between males and females.

10. For Groups I, II, and III anticipatory attitudes toward the last two years of school did not appear to be an issue in educational choice. There was no significant difference between groups. Also, males and females did not differ on this issue.

It was interesting to find that neither group had more desire than another to remain in school or to get out of school. It is a common thought that students receiving vocational training have a great desire to finish school and start working. Also, it is sometimes postulated that those who are not learning job skills may wish to remain in school for lack of some better activity. The results of this study obviously don't provide evidence for these speculations.

11. Groups I, II, and III did differ on perceptions of differential extracurricular activity participation. More vocationally-oriented high school students than E. H. O. V. E. students admitted to the reality of the situation; the subjects in Group II-V. O. , more so than those in Group I-V. S. , indicated that more high school students than E. H. C. V. E. students participate in extracurricular activities. Again, more vocationally-oriented high school students than non-vocationally-oriented high school students admitted that more high school students than E. H. O. V. E. students participate in extracurricular activities.

12. Males and females did not differ significantly on differential extracurricular activity participation.

VOCATIONAL OPPORTUNITIES FOR THE DEAF IN KANSAS

Busby, Howard Ray
M. S.

University of Kansas
1973

On the basis of data collected, the vocational opportunities for the deaf in the state of Kansas are not very adequate.

Vocational rehabilitation counselors who responded to the questionnaire, for the most part, had little or no experience in working with the deaf. One counselor, working in the Kansas City office, had most of the caseload on the hearing handicapped. The employment situation in the state as a whole, as reported by the counselors did not appear to be very favorable for deaf workers. There is a need for more adequate vocational training facilities for the deaf in the state. Employers need to be informed as to the abilities of deaf workers. This statement was also made by several employers. Vocational rehabilitation counselors also pointed out that deaf clients did not know what they wanted nor what they were capable of doing. This indicates a need for pre-vocational programs in evaluation and career development. Counselors rated opportunities for vocational training outside the state of Kansas as better than within the state.

Most graduates who responded to the questionnaires mailed to them were satisfied with their present situations. This is not surprising in view of the fact that most respondents were in college or trade schools, and in the words of one of them, "having a chance to improve himself." These graduates are aware of the need of good communication skills in securing and holding jobs. A necessary component of good communication for most

deaf people is good English. Language acquisition is rated the most important aspect of education of a deaf child. Terman and Guilfoyle (1970) stress this point strongly. In their extensive survey of deaf adolescents of four residential schools, they reached the conclusion that:

From the point of view of vocational rehabilitation,... any attempt to improve the deaf adolescents' vocational maturity by supplying him with additional vocational information must give serious consideration to the problem of language competence. (1970, pp. 64-65)

While the majority of deaf graduates in this survey regarded employers as being non-discriminatory, those employers who had hired the deaf usually spoke well of them. Nevertheless, a great number of employers think deafness would be a handicap in the performance of most jobs. Apparently the greatest handicap here is not among the deaf, but the ignorance of so many employers about the abilities of most deaf people. Educators are at fault also. They often fail to communicate with the public in general and with employers in particular.

Duprez (1971) made a study among deaf female students of occupational prestige and its correlates. He found that the deaf saw only education and prestige as highly related while hearing subjects rated education, interest, and salary high as to prestige. There was over-acceptance of the limitations of deafness and a tendency to attribute prestige to occupations they could easily enter. The writer did not find this to be true of the subjects in his study. Nearly 50 percent of the graduates thought they were being discriminated against in pay. This would indicate some attribution of prestige to pay.

There is still much to be desired in vocational opportunities for the deaf in Kansas. While the occupational outlook does not appear to be very bleak, the deaf may find themselves caught short of time and in dead-end and obsolete jobs. Before we rush headlong into upgrading and changing our vocational programs, we should pause and listen to what J. A. Sessions (1966) has to say about automation:

Automation places a premium upon workers who are flexible and quickly retrainable. The deaf are conspicuously weak in these regards,...because they are weak in the verbal skills upon which flexibility and training depend.

Automation creates change and new problems. It creates new jobs which most people begin training for. That means fewer workers for many older types of jobs such as horseshoeing. There is a shortage of skilled horseshoers. Therefore, the demand for horseshoers at race tracks, rodeos or stables is at a premium. But, horseshoeing, in the eyes of most hearing people, is not a prestigious job. Nevertheless, it pays well.

It may be important for educators to look into those little regarded jobs and try to interest and train the deaf for them.

Of those 46,000 hearing-impaired students listed in the Annals, 2,094 were attending post-secondary schools and programs for deaf students, according to Stuckless (1972). This number will rapidly increase in the next decade and the number of schools and programs will double during this same span of time. There is hope, then, for the deaf graduate.

OCCUPATIONAL CHOICE AND ACHIEVEMENT OF WOMEN GRADUATE STUDENTS IN PSYCHOLOGY AS A FUNCTION OF EARLY PARENT-CHILD INTERACTIONS AND ACHIEVEMENT AS RELATED TO BIRTH ORDER AND FAMILY SIZE

Carlson, Nancy L.
Ph. D.

University of Kansas
1970

Despite much concern and considerable controversy about the role of women in the world of work, there has until recently been little research conducted on the issue. Most of the vocational development theories have been developed on the basis of what has been learned about men, although the suggestion has been made recently by Anne Roe that a separate vocational development theory is needed for women. This study is concerned with that problem.

In 1956 Anne Roe proposed a theory of vocational choice which hypothesized that parental attitudes toward children influence the child's eventual orientation toward his environment and the people in it. If the parental treatment of the child was accepting or concentrating it was supposed that children from these homes would eventually select occupations which were person oriented. If the treatment was of an avoiding nature the child was hypothesized to choose an occupation of a nonperson-oriented type.

Several tests have been made of the Roe hypotheses regarding parent-child relations and occupational choice, but no support was found for them until Medvene investigated the theory in 1968 with the use of a sample of male graduate students in psychology. The present study is a test of the Roe theory with a sample of women graduate students in psychology, utilizing the procedure designed by Medvene.

The subjects were tested with the Roe and Siegelman Biographical Questionnaire, designed to designate the dominant parent, and Brunkan and Crites' Family Relations Inventory, to determine parental treatment of the child, and assigned to one of six categories. Each subject was also classified as having selected a person or nonperson-oriented occupation within the field of psychology.

Eighteen hypotheses were tested for the total sample and the doctoral subsample, and comparisons of the results were made with those of Medvene's male sample. In addition, eight hypotheses were tested to determine the relationships of parent-child interactions, birth order, and family size to achievement, with doctoral students being defined as the achievers in comparison to the master's students. The chi square and binomial statistical tests were used.

The following results were obtained:

1. There were no differences between the numbers of women graduate students in psychology who selected person-oriented occupations and those who selected nonperson-oriented occupations for any of the categories of parental treatment. In addition, there were no differences between these numbers when the sex of the dominant parent was considered.
2. There were significant differences between the results for the sample of women and those obtained by Medvene for his sample of men.
3. Significantly more of these women graduate students perceived themselves as having been concentrated upon or avoided by their parents than as having been accepted by them.
4. There were no differences for this sample in the number of persons who came from larger or smaller families than is true of the general U. S. population.
5. Significantly more of these women were first-born than later-born, more than for a mixed-sex graduate student sample.
6. There were no differences between the doctoral and master's student subsamples on the variables of parental treatment, incidence of first-born, and proportion coming from smaller families.

The conclusions were:

1. No support was obtained for the use of Roe's theory with women, although support was obtained for her recent suggestion that the vocational development of men and women is different and that a separate theory for women should be developed.

2. Women graduate students in psychology, master's and doctorate, are more likely to be first-borns who perceive themselves as avoided or concentrated upon by their parents.

A STUDY OF THE VOCATIONAL INTEREST AND SOPHISTICATION
ASSESSMENT OF THE EDUCABLE MENTALLY RETARDED IN
THE SHAWNEE MISSION UNIFIED DISTRICT, LEVEL III AND IV

Cochran, Maxine Jones
M. S.

University of Kansas
1971

The investigation of the VISA as an appropriate and useful instrument in the vocational evaluation of level III and IV educable retarded students was conducted with 90 students (ages 12-19, I. Q. 46-99) in the Shawnee Mission Unified School District, Shawnee Mission, Kansas. The data was examined to determine the preference of jobs among males and females, to assess their interest and knowledge in job categories, to evaluate the VISA as an instrument to be used in counseling and evaluating students for vocational placement and to determine the effectiveness of the vocational curriculum in the special classes.

The t-test was used to examine hypothesis one, that level IV students would score higher on sophistication of job categories than level III students. A significant difference (.05) was found between the level IV female students and the level III female students. Hypothesis 1a was accepted. There was no significant difference found between the level IV males and the level III males. Hypothesis 1b was rejected.

The second hypothesis, that vocational interest patterns are correlated to vocational sophistication was rejected. In only two instances were there significant correlations found between interest and sophistication. All correlations were non-significant in the females. Significant correlations were found among the level III males in the industry category. A significant correlation was found in the Farm and Grounds category among the level IV males. These findings confirm Farnicky, Kahn and Burdett's conclusions that knowledge and interest are independent factors.

The third hypothesis, that the VISA can be used as a useful instrument in evaluating the vocational placement of level IV students was accepted. There is a need for an interest test which does not require reading and which is concerned with job areas within the realm of a retarded person's potential working capacity.

Limitations of the Study

There were some limiting factors to consider in evaluating the results of this study. First, the VISA, while a reading free test, did not always present pictures which were entirely clear to the students. The first question asked the students was, "What is the person doing in the picture?" Picture B of the male sophistication inquiry was confusing to many students. The picture showed a worker putting clothes into a very large washing machine such as one would find in a commercial laundry. Common answers to the question were, "he is mixing cement" or "he is mixing bread dough." All other pictures were readily identified. The effect of this one picture could have lowered the scores of some of the male students.

Secondly, the investigator's interpretation of the answers given by the students might not be totally objective. The test was administered and scored entirely by the investigator and every effort was made to interpret without bias but subjectivity could have entered into the scoring of the test.

Thirdly, the VISA is a new test, having been copywrited in 1968. The authors have sent copies of the test materials to schools and agencies for use but results and comparisons have not been published as yet.

Implications of the Study

Investigation and research on the VISA has not been extensive enough to determine reliability and validity. This study was primarily concerned with level III and level IV special education classes of the Shawnee Mission Unified Public School System for the purpose of assessing the knowledge and interest of the students concerning job categories.

The data clearly points out that the students did express likes and dislikes of certain job categories. Among the level III and level IV male population, the highest mean in interest scores was in Farm and Grounds. The lowest mean was in Industry among the level IV students and in laundry work among the level III students. The sophistication scores indicate that the highest mean for both level III and level IV to be in the area of Farm and Grounds. There appeared a correlation between knowledge and interest in the area of Farm and Grounds and no correlation in the Laundry category.

Interestingly enough employment in agriculture for retarded individuals is very bleak (Wolfensberger, 1967). Farm employment has for some time declined. Patterson and Speck (1963) found that very little work could be found for women in the rural areas and that employment for men was mostly seasonal. Placing the retarded in farming because of high interest in the area does not seem feasible at this time because of seasonal employment, dangers in a hazardous occupation and the diversified tasks involved.

Among the level III and level IV female population, the highest mean in the sophistication scores was determined in the Business and Clerical category while the highest mean in interest scores was in the Laundry area. A number of the level IV female students have been successful in laundry work.

The application of the findings certainly could be used in considering job placement of individual students. Follow-up is needed to determine how many of the second semester seniors are employed in jobs in which they expressed interest.

A STUDY TO DETERMINE THE ABILITY OF NINTH GRADERS TO PREDICT THEIR INTEREST AREAS BEFORE TAKING THE KUDER PREFERENCE RECORD-VOCATIONAL

Fell, Robert M.
M.S.

University of Kansas
1971

The purpose of this paper has been to test the hypothesis that ninth grade students can predict their interest areas without taking an interest inventory with a significant degree of accuracy.

The males and females used in this study could not be treated as one population because of the significant difference in their responses on the Kuder. A chi square for the male and female group scoring on and below the 25th percentile on the DAT VR=NA scale produced a significant difference with eight degrees of freedom beyond the .02 level. The group consisting of males and females scoring in the bottom 25 percent of the total sample on the DAT VR+NA scale had a significant difference with eight degrees of freedom beyond the .05 level. A significant difference found in both of the above mentioned groups was due to sex or ability. The males and females in these two groups were already grouped according to ability so a sex difference seems to be the logical explanation for the difference in the responses.

The males and females scoring in the top 25 percent of the total sample on the DAT VR+NA scale produced a different chi square than the group scoring above the 75th percentile but not with a significant difference with eight degrees of freedom beyond the .10 level. These two groups could have been treated as one population.

A chi square was used to obtain the predicted accuracy for each set within each subsample group. The males scoring above the 75th percentile on the DAT VR+NA scale when compared with males below the 25th percentile have the highest prediction ability. They produced a chi square of 20.9 which is significant beyond the .01 level and a coefficient of contingency of .4338. The writer believes this to be significant enough to say that males scoring above the 75th percentile on the DAT VR+NA scale can predict their interest areas with a reliable degree of accuracy.

The males scoring in the top 25 percent of the total sample on the DAT VR+NA scale have the second highest predictive ability for any subsample. This could be a result of having six males who scored below the 75th percentile on the DAT VR+NA scale in the top 25 percent group. They had a chi square of 14.9 significant between .10 and .05 level, and a coefficient of contingency of .3040. The writer does not feel that this is significant enough to say that these males can predict their interest areas with a significant degree of accuracy.

The females scoring above the 75th percentile on the DAT VR+NA scale have the lowest predictive ability of any group tested when compared with males scoring in the same percentile range. They received a 3.054 chi square, significant between the .95 and .90 level. The females scoring in the top 25 percent of the total sample on the DAT VR+NA scale received a 3.3 chi square, significant between the .95 and .90 level when compared with the females in the bottom 25 percent.

The males have a higher predictive ability in every comparison except one than the females. The males scoring in the top 25 percent of the total sample on the DAT VR+NA scale have a lower predictive ability than the females in the top 25 percent. The writer came to the conclusion that males do a better job of predicting their interest areas than females.

The writer suggests the following possibilities for further study in this field.

1. All males versus all females in a single grade.
2. Males between the 75th and 25th percentile versus males above the 75th percentile.
3. Males between the 75th and 25th percentile versus males below the 25th percentile.
4. Females between the 75th and 25th percentile versus females above the 75th percentile.
5. Females between the 75th and 25th percentile versus females below the 25th percentile.

6. All males versus all females in each of the ten areas of interest.

EDUCATIONAL AND TRAINING REQUIREMENTS TO MEET
PROJECTED LABOR FORCE NEEDS OF THE
STATE OF KANSAS TO 1985

Finch, Harold L.
Ed. D.

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1971

Background

Kansas manpower requirements and the labor force structure have changed markedly since World War II. In recognition of the importance of these changes, economic and manpower specialists have increasingly expressed a need for comprehensive education and occupation-oriented training at both the secondary and post-secondary levels. In response to this concern as well as to other educational needs, the number and size of post-high school institutions increased rapidly during the 1960's. During the latter stages of this period of rapid expansion many observers expressed concern that education was over-reacting and that overall quality was suffering. In 1970, the Kansas Master Planning Commission was established to conduct a study of post-high school education and to develop a long-range master plan.

Statement of the Problem

This study was conducted for the Kansas Master Planning Commission to fulfill the manpower aspects of its charge. The major objectives of the study: (1) to provide insights into manpower and work preparation trends over a period covering the past and present as well as the future, (2) to forecast occupational growth and replacement needs to 1985 for regions within Kansas as well as for the state as a whole, and (3) to translate labor force needs into educational and training preparation requirements.

Procedure

Three procedures were evaluated: industry census, econometric modeling, and regression analysis. Regression analysis was selected as the principal method of investigation, and results of a Bureau of Labor Statistics econometric modeling forecast were used to provide gross

comparisons. The method was designed to provide three kinds of information not generally produced in state master planning: (1) projected labor force requirements of regions as well as for the state as a whole, (2) projected labor force requirements broken down by sex, and (3) projected labor force requirements described in terms of an Educational and Training Preparation Group (ETPG) specially developed for the study.

The Program Evaluation Review Technique (PERT) system management procedure was used in designing and implementing the study.

Results

Labor force data were developed in terms of the following variables: 20 regions, 11 occupational groups, sex, year (1940, 1950, 1960, 1970, 1975, 1985), and 5 ETPG classifications. The output of this study included 48,000 distinct estimates of labor force and annual labor force needs. The magnitude made it possible to analyze the Kansas labor force from various viewpoints and to study the parameters related to manpower requirements in considerable detail.

Data are presented graphically as well as tabularly. Representative findings include:

1. The fastest growing occupational groups from 1940 to 1985 were projected to be: Professional, Technical, and Kindred Workers (over 200%) and Craftsmen, Foremen, and Kindred Workers (over 100%). Farmers and related workers were projected to decline significantly.
2. Craftsmen will constitute almost 25 percent of the male labor force in 1985.
3. The fastest growing ETPG group for both males and females was predicted to be "one to three years of college or business school programs" with an increase of over 500 percent projected for the 1940 to 1985 period.
4. The demand for males who have no cognitive or skills training beyond high school will continue to decline.
5. In general, the future demand for females is expected to be considerably greater than for males.
6. The greatest number of job opportunities in the near future will be for females with skills training (e.g., typists).
7. The number of openings for college graduates will continue to be relatively small.
8. Labor force requirements vary significantly from region to region within Kansas.

Future Research

An analytical model for integrating labor force requirements with other pertinent variables was proposed as the next step in long-range planning.

INCREASING THE ON-TASK PERFORMANCE AND ATTENTION RATE OF TRAINABLE MENTALLY RETARDED STUDENTS USING IMMEDIATE MONETARY REINFORCEMENT

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1974

A special education teacher for the trainable mentally retarded who teaches students in a pre-vocational setting, is concerned with many areas of deficit that each student possesses. There are social deficits, academic deficits, self-help deficits, and, most importantly, work skill deficits. If the student is ever to become a semi-independent individual working in his community, the student must possess the vocational skills necessary to obtain and keep his job, whether it is in a sheltered workshop or a type of competitive employment.

In order to place a student in a competitive job situation or sheltered workshop situation, there needs to be some measure to assess the student's ability to succeed in the placement.

The student's rate of recycling products is assumed to be largely dependent upon his attention to task and, as his attention to task increases or decreases, his production rate will increase or decrease proportionately. The present study was designed to investigate the effect of immediate monetary reinforcement on attention to task, as opposed to delayed monetary reinforcement, for a group of eight trainable mentally retarded young adults, aged 16 through 21, who were working in a recycling center.

A search of the relevant literature revealed no previous experimental studies investigating the relationship between immediate monetary reinforcement and attention to task in a work setting. However, related literature on production rates provided some direction for this study and will be highlighted in the following section.

Discussion

Most teachers working with trainable mentally retarded young adults are concerned with their vocational skills. If the older Level IV students are to have any chance to become semi-independent adults they need job skills for their survival in the community work force. Granted, only a small percentage will be likely to become totally independent in the work force of the 1970's but a large majority can adjust to a job and become productive members by working in a sheltered environment.

This study has explored one aspect of the problem of work skills and gives support to the notion that the retarded can improve the job skills necessary for employment by using immediate monetary reinforcement in the modification of the work skills necessary for job success.

The variable selected to represent an objective measure of work skill was the students' attention to task. This was done by the shop foreman as he checked attention to work task. If the student was not working at the specific job to which he was assigned, he was not given credit for attention to task. The attention rate was the percentage of time the student was credited with working on task in the re-cycle plant.

The baseline performance of the eight subjects selected for this study indicated that one half of the subjects were working less than 50% of the time they were "on the job." Two students were working at 58% and two were working at 69% and 71% respectively. The group mean during baseline was 52%.

During the immediate monetary reinforcement, the mean for the group was 69.5%. This was an increase of 17% over the baseline phase of the experiment.

During the reversal phase the group mean was 50%. This was a decrease of 19% when compared to the immediate monetary reinforcement phase and a percentage point decrease of 2 when compared to the baseline phase. The findings of this study closely parallel the findings of Zimmerman, Stuckey, Garlick, and Miller (1969).

There could have been other factors that influenced the results of the experiment. At about the same time that the immediate monetary reinforcement phase went into effect a coke machine was installed at the cottage where the students went for their "break." The fact that the coke machine worked only when a dime was inserted might have made the dimes more attractive to the students, and hence spurred production and on-task behavior at the re-cycle plant.

Another influencing factor could have been peer competition. The students would count their total number of dimes at the end of the work

day and then compare their totals. The competition between the Ss might have increased their on-task behavior and attention rate.

The variability in the data may have been an artifact of the way attention to task was measured as time samples tend to reflect greater variability.

There were 3 students for whom money held little importance. Subjects 3, 4, and 8 cared only that they had enough dimes to buy cokes each day. As long as they had two dimes a day they were satisfied, while others in the group were very careful to hold on to each dime and save them for a planned purchase sometime in the future.

Once each two weeks, on an "off" day the entire group went shopping to spend the money they had saved. Again the same 3 subjects had trouble saving any money and when they did manage to save they did not have any idea of what to buy and needed to be encouraged to find something to buy.

Subject 6 showed the least improvement of the group in relation to the percentage of increase in attention rate. Her whole attitude was one of complete boredom, and several times during the year she verbalized that she "hated to work in that place!" She did not improve much during the immediate monetary reinforcement phase of the experiment, increasing only 4 percentage points above her baseline work rate.

Subject 5 was a 16 year old student who had cerebral palsy. This was not a handicap in her job placement as she was assigned a job where her disability did not interfere with her work. She showed a percentage point increase of 22 during the immediate monetary reinforcement phase of the experiment and seemed to enjoy earning the dimes. Her on-task performance and attention to task dropped to 39% during reversal which was a percentage point decrease of 7 when compared to her baseline rate.

Subject 1 was a 16 year old male who had the highest percentage of attention to task among the boys, for both the baseline and experimental phase of the experiment. He increased 9 percentage points during the experimental phase of the experiment but showed a percentage point decrease of 32 during the reversal phase when compared to the baseline data. He was a good worker and took pride in his job and seemed to enjoy working.

Subject 2 was an 18 year old male with an attention rate of 58% during baseline. He increased his attention to task to 70% during the immediate reinforcement phase of the experiment. During the reversal phase his attention to task showed a percentage point decrease of 10. The results of the immediate monetary reinforcement would seem to indicate that his attention to task improved.

Subject 7 was a 15 year old female. This student's main attitude was indifference. She did not seem to care if she worked or not. Money was not too important to her as her parents made sure she always had enough for her needs. She did, however, increase her rate of attention to task 15 percentage points during the immediate monetary reinforcement phase of the experiment and the attention to task showed a percentage point decrease of 7 during the reversal phase.

The following are areas that are acknowledged as limitations of the study.

The group population was small. The findings might possibly be more generalizable had a larger population been possible.

The study was conducted in too short a time period. Ideally, the reversal should have continued longer with another immediate monetary reinforcement phase as the last part of the experimental design. This was not possible as school was to close for the summer vacation.

The major variable of actual work production was not attended to during this study.

There were no reliability checks run during this study. This might have indicated greater accuracy of the rates on attention to task.

The group mean for the baseline phase of the experiment was 52%; the group mean for the immediate monetary reinforcement phase was 69%; the group mean for the reversal phase was 50%. This shows a percentage point increase of 17 during the immediate reinforcement phase, and a percentage point decrease of 19 during the reversal phase when compared to the immediate monetary reinforcement phase.

Future research should attend to some of the limitations of this study with focus on the production rate.

MDTA TRAINEES: CHARACTERISTICS ASSOCIATED WITH SUCCESS AND FAILURE

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1973

The focus of this research was to determine characteristics associated with success or failure in the clerical training programs at the Manpower Training Skills Center in Kansas City, Kansas.

Female trainees involved in clerical training during the fiscal years of 1969, 1970, and 1971 were the population from which the sample for this study was selected. Another criterion of selection for the study was to have taken the General Aptitude Test Battery prior to entering training. The total sample consisted of 221 trainees out of an enrollment of 288 for the three years.

Nine null hypotheses were examined. Chi square was used as the test of significance. Of these hypotheses, five were rejected, and four were accepted. The characteristics which were found to be associated with being successful or unsuccessful in MDTA clerical training were: (1) education; (2) work experience; (3) race; (4) passing the SATB for Clerk, General office; and (5) being an ADC recipient.

Results of hypothesis found educational level to be associated with success in training. The results of hypothesis agree with some of the studies cited previously in the review of the literature. In this study, as with the others, a larger percentage of the trainees with a high school education were successful than the trainees with less than high school education. However, the validity of education as a screening device with a similar sample is questionable as it would exclude too many potentially successful trainees. In the total sample, 63 percent of the non-high school graduates were successful; in the white sample, 72 percent of this group were successful; and in the non-white sample, 50 percent were successful.

When the total sample of hypothesis subdivided into white and non-white for further chi square tests, the results obtained for both categories were significant.

The hypothesis regarding age was accepted. The results of this hypothesis are not consistent with other research findings. In the studies aforementioned, age was usually found to be associated with success in training, with a larger proportion of the adult trainees being successful than the youths. Even in this factor, however, there was inconsistency in the research reports. Summerfeld and Fatzinger (1967) determined age to

be significant in their initial group of men studied, but in their cross-validation group, the same result was not obtained, as no significance was found. In the study of Hoos (1967), it was discovered that the younger MDTA trainees were the ones who completed training more often, rather than the older trainees.

The results of this hypothesis regarding age may have been affected by the manner in which the groups were divided. Due to the size of the sample, the chi square cells were divided into only three age groups. The findings obtained on this hypothesis would indicate that future studies need to have a large enough sample so that more groupings may be made over a wider range of ages.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, no significant differences were found in the results.

The hypothesis regarding marital status was accepted. This result coincides with that found by Summerfeld and Fatzinger (1967), whose study on their initial group also found no significance between marital status and success in MDTA training. However, the studies by Kult, Trotter, and Western (1969), and Hammer and Rohen (1971), both found marital status to be significantly related to success in training. In both of these studies, men were included in the population samples, and this factor may have affected the result differently than a sample which included only women, as with this sample.

Furthermore, marital status was separated into only two groups for computation of the chi square. Single comprised one group; with married, divorced, separated, and widowed being combined for the other group. Since marital status was grouped in this manner, the results of this hypothesis should be interpreted with caution.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, the results obtained indicated no significant differences.

The hypothesis regarding the number of dependents, was also accepted. Again, the results of this study agree with earlier findings of Summerfeld and Fatzinger (1967), who, in both of their samples, found no significant relationship between the number of dependents which trainees had and their success in training. However, two of the studies previously reviewed found the number of dependents which trainees had was associated with success in MDTA. These studies were by Bell (1967), and by Hammer and Rohen (1971).

The hypothesis regarding work experience prior to entering training was rejected. A greater proportion of trainees with longer work experience

were successful than was true of those with less work experience. The results of this hypothesis agree with the studies reviewed previously, in which more years of work experience was the most commonly cited factor associated with successful MDTA trainees.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, a significant difference was obtained only for the category of white trainees. However, caution should be observed in interpreting the results. When comparing the proportions of trainees in each group of the white and non-white categories, the differences between the samples appear to be minimal.

The hypothesis regarding race was rejected. This agrees with the results obtained in the studies by Hoos (1967), and by Roberts (1968). However; Kult, Trotter, and Western (1969) found no association between race and success in training.

Associating success in training with race only is misleading. When the hypotheses categories were divided into white and non-white, significant results were seldom obtained. Since differences in areas such as education, for example, may be attributed to environmental conditions, and since these conditions may differ for white and non-white groups, success or failure should not be attributed to race alone.

The hypothesis regarding STAB scores was rejected. The results of this analysis agree with the research by Droege (1968), and would appear to substantiate the use of the SATB for selection of trainees entering Clerk, General Office training. However, more complete review of all the results obtained for this hypothesis indicate that the use of the SATB for a screening device would not be justifiable. In the total sample, 70 percent of the trainees who failed the SATB were still successful in training. In the white sample, 79 percent who failed the test were, nevertheless, successful. The non-white sample indicated that 64 percent who failed the SATB were successful in training.

The MDTA trainee population is largely naive in relation to taking written tests, and this may partially account for the results obtained in this hypothesis. While working with MDTA trainees, the author has often observed an increase of several grade points in achievement test scores which the trainees had taken at the beginning and again near the end of their training programs.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, no significant differences were obtained in the results.

The hypothesis regarding being economically disadvantaged, was accepted. This particular factor had not been studied previously, and its

value for inclusion in further studies is questionable. The designation of disadvantaged is primarily determined by family income. This designation may be of limited value, as there are actually many other characteristics inherent in being disadvantaged.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, no significant differences were obtained in the results.

The hypothesis regarding the significance of being an ADC recipient was rejected. A larger proportion of trainees who were not receiving ADC were successful than those who were receiving ADC benefits. However, caution should again be observed in application of these results. In the categories of ADC recipients, the following percentages were successful: in the total sample, 63 percent; in the white sample, 70 percent; and in the non-white sample, 60 percent. This factor had not been studied in the literature reviewed, but should merit consideration for further research.

When the total sample of this hypothesis was subdivided into white and non-white categories for additional chi square tests, no significant differences were found.

A STUDY OF TWO STYLES OF OFFICE EDUCATION PROGRAMS USED IN SELECTED KANSAS HIGH SCHOOLS

Hamilton, Mary Elizabeth
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1973

This investigation was begun as an effort to justify innovative programs for training office workers in small high schools. It seemed apparent to the author that the traditional office practice class was not meeting the objectives called for in today's world of work, even though it did seem to exceed by far the product of separate subject-matter courses which are not followed by a culminating integrated class. The search for practical innovations led the investigation in one direction only--to a curriculum that would include some kind of directed work experience which is correlated with an office practice class. Two plans were most often recommended in current business literature, and both correspond to the above requirements: (1) The Office Laboratory and (2) Cooperative Office Education. The study was directed at these two programs and variations of them.

To make it possible for the author to collect descriptive data, a questionnaire was drawn up and sent to 40 high schools within 10 nearby counties. The questionnaires were used primarily to identify the business departments which offered terminal office programs to their student clientele. The investigator wished to find which capstone programs she would most like to study by personal interview and observation, however other data was requested.

Thirty-three heads of business departments responded to the questionnaire. From their replies it was found that 29 of the questioned schools offer a terminal office course to their business students. Of the 29 with terminal courses, 25 schools give the students an opportunity for some kind of real office experience, from the typing of tests for teachers, to real office work within the community. Fourteen schools have students from an office practice class working regularly at stations within the community.

Only five of those with terminal courses used an Office Laboratory Program and only eight offered Cooperative Office Education. From these two groups, five schools were selected for further investigation. Each chosen school was visited, heads of departments were interviewed, and whenever possible, classes were observed. Interviews were taped for further study and reference. Most teachers gave samples of some part of their teaching materials which they considered especially interesting and which may be found in the appendixes of this paper.

It is apparent from the study of the business programs that both Office Laboratory and Cooperative Office Education have similar educational philosophies. Both aim at helping the student make quick and successful transition from school to full-time employment; both strive to graduate contributing members of the work force who can adjust to new situations and advance in their jobs. Both programs attempt to develop skilled individuals who relate in the proper way to employers, other employees, and customers.

Seemingly, the most successful method of preparing a student for an office position is to train him for a job which he is able to fulfill to the satisfaction of his employer. To do this, the advice of many business persons is needed. It appears reasonable to conclude that no matter what kind of business program a school has, an advisory committee made up of business people would be of benefit.

Student needs must be identified before their goals can be established. Parental assistance is valuable in needs identification and goal determination for either kind of program.

Good teachers who are eager and enthusiastic about vocational business courses are an asset for both programs, and their value can probably be increased if good in-service training is made available.

It appears that the Office Laboratory might require greater variety in equipment than is required by Cooperative Office Education since the cooperative student will have further opportunity to become acquainted in some depth with machines wherever he works. The Office Laboratory Plan generally requires more supplies than a Cooperative Office Education Plan.

Reality is the essence of any plan, since students need to perceive the flow of office work and to visualize over-all office activities every real business situation with which a student is confronted is to his advantage, and the degree of reality is apparently important. For example, a practice set seems to be better than a workbook; a simulation seems to be better than a practice set; and on-the-job training seems to be the plan which best serves the needs of beginning office workers.

Whichever plan is instituted, the only way to continue with success is to evaluate, revamp, process, and reevaluate.

Evaluation for business programs should include:

1. A comparison of the program goals with student performances.
2. A collection of data from a follow-up of graduates.
3. An investigation of the effectiveness of class instruction.
4. An investigation of the effectiveness of on-the-job training.
5. An investigation of club activities.
6. A comparison of the above with the school philosophy.
7. An evaluation by the administrative staff.
8. An evaluation by the State Department.
9. An evaluation by an evaluating committee.
10. An evaluation by self-appraisal.
11. An evaluation by former students.

Data from this study is insufficient to draw significant conclusions, but most evidence indicates that one of the best culminating programs a school could have would be a plan by which a junior year course of two or more hours would introduce a program involving skill training, attitude improvement, personal development, and interpersonal development. Cooperative office education would be available during the senior year.

Within the related classroom, an office laboratory with intensive study based upon individual needs would be correlated with the office work done by the student at his work station.

A COMPARISON OF KANSAS COMMUNITY JUNIOR COLLEGE STUDENTS
WITH KANSAS AREA VOCATIONAL-TECHNICAL SCHOOL
STUDENTS ON 131 INVENTORY ITEMS

Hanna, John Porter
Ph. D.

University of Kansas
1973

Statement of the Problem

In Kansas, as in the other states, a rising demand for post-secondary education occurred during the decade of the 1960's. This increase in demand brought an increase in programs in the community junior college where the greatest increase in enrollment was felt. As more and more students began to realize that a four year baccalaureate degree was not possible or necessary for all students, they became more interested in the vocational technical areas. This area had traditionally been the property of the area vocational-technical school. There developed a duplication of programs and courses between the Kansas community junior colleges and the Kansas area vocational-technical schools.

In the late 1960's and early 1970's more and more discussion was taking place concerning the possible merging of these two institutions. The major purpose of such a merger was to eliminate the duplication of effort and thereby reduce costs. The problems associated with such a merger are many, not the least of which is the possible inherent differences between the students of the two institutions.

This study draws information from two questionnaires: "Inventory of Certain Characteristics and Opinions of Kansas Community Junior College Students," and "Inquiry to Kansas Area Vocational-Technical Posthigh School Students" containing 131 identical items that were administered to Kansas community junior college students in 1968-69 and Kansas area vocational-technical school students in 1970-71. The result was a comparison of Kansas community junior college student characteristics with those of Kansas area vocational-technical school students.

Procedures

In order to ascertain whether or not the two groups differed with respect to an item or characteristic, two techniques were used: (1) the analysis of variance (ANOVA) technique, and (2) the significance of the differences between two percentages.

With the ANOVA technique the F sampling distribution was used for the 33 items having an underlying continuum to test the null hypothesis: the means of the responses to each of the items of the inventory were equal for the two groups of community college and area vocational-technical school students. The significance of the differences between percentages was used for the 98 items that were categorical in nature. This procedure originated with C. H. Lawshe and P. C. Baker of Purdue University.

Findings and Conclusions

Analysis of variance (ANOVA) summary tables, significant difference tables, and summary statements were made. It was found that the characteristics of Kansas community junior college students were different from the characteristics of Kansas area vocational-technical school students. The exact degree of difference between the two groups varied (some were very significant and others were not significant) both from characteristic to characteristic and between subgroups (males versus males and females versus females) on the same characteristic. The most striking fact, aside from the many differences between the groups, was the great degree of similarity between the two groups of females. The number of significant differences found between the community junior college females and the area vocational-technical school females was substantially lower than the number of differences found between their mail counterparts.

Although this study points out the existence of differences between the two groups, it is also evident that a great deal of overlap exists. If these two institutions are to be placed under a single administration, faculty members and administrators alike must be aware of the differences that exist between these two groups of students. It should also be recognized that both the community junior college and the area vocational-technical school are each providing important and necessary services to their respective student bodies. It would seem that no matter what the future administrative structure might be, society cannot afford to be without the unique skills provided by the community junior college and the vocational-technical school, and neither should be regarded as more important than the other.

LITERARY-VOCATIONAL RELATIONSHIPS IN THE AMERICAN
EDUCATIONAL CONTEXT, FROM 1820:
IMPLICATIONS FOR INSTRUCTION

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This dissertation is a study of the ways in which students can approach literature so as to become oriented to the prospect of a lifetime of vocational endeavor. In order to uncover possible methods of approaching literature, aspects of the American educational context have been studied. At the outset, the content of literary works appeared to be a predominant factor; in such a study the logical thing to do seemed to be to examine the ways in which educators had treated in their classes those works with an obvious vocational content such as The Canterbury Tales and the Bible. As the investigation progressed, it became apparent that a number of relationships exist between literature and vocation; further, it became possible to project ways in which these relationships might become instructional modes.

The method of the study thus became a process of inferring and projecting these varied relationships from an analysis of (1) formative factors in the European background pertinent to the American educational context; (2) events and statements in early nineteenth century America and England pertaining to education; (3) the writings of nineteenth-century literary figures; and (4) the professional writings and activities of educators, particularly English educators, in the modern American educational context. These areas of analysis correspond generally to the chronology and organization of the study.

During the development of literary and vocational education in the United States there have been several broad shifts in focus and attention. Within the periods of the development can be seen a number of specific kinds of literary-vocational relationships. During the first half of the nineteenth century, before an educational profession had emerged, literary-vocational relationships were identifiable in American social action and thought. A number of spokesmen tended to relate literary education to that type of vocational striving implied by the phrase "class mobility"; to the extent that it was perceived as a part of "upper-class" liberal arts education, literature tended to be identified in class terms. Yet literature also came into the lives of laborers through the frequent publication of poems, stories, and expository pieces on literature in mechanic's newspapers and journals.

Also during the first half of the nineteenth century, there was frequent and varied support given to the idea that there would be an interchange of vocational activities and life styles among the social classes. For example, Emerson, Greeley, and Brisbane proposed that men of leisure should become engaged in labor and that the laborer should experience literary pursuits. There was an egalitarian aspect to these arguments and there was a psychological aspect too. A prescription for a sharing of life styles is a logical response to the dissociated behaviors created by the developing industrialism. If the activities of persons not only of different, but of the same social class become more diverse, than a unity of awareness through such interchange is desirable. Various means for achieving a unity of awareness through education would eventually be articulated in detail by Dewey, who would seek to intermix types of experience by seeking within them analogues: school experience can approximate vocational experience which can be analogized to esthetic experience.

Channing, Thoreau, and Emerson wrote of matters touching upon education often in terms of philosophical idealism. Channing would have laborers learn Platonic principles like justice by means of the contractual obligations learned through work as well as through literature. Thoreau wrote of a poetical, ideal reality and explored the means within everyday practical experience for seeking this higher reality. Emerson was anxious for the literary man to remain idealistic and uncontaminated by contact with the commercial world, yet to partake in manual labor. With these men, the world of work could be referred to a higher reality and could thus be related to self-improvement and the attainment of insight and wisdom.

Before the American Civil War, the province of literary spokesmen naturally seemed to range from matters such as self-education to the search for meaning in everyday practical life to the education of the various classes of society. The post war period brought a shift in the nature and the scope of this province. One of the major influences in this shift was a heightened awareness of the needs of industrialism. The medium of a developing profession of educators provided a forum for an articulated response to industrial needs. As the importance of specialized job training came to be recognized, there arose a raison d'être for educators with utilitarian views. The classical element of liberal arts education came under attack, and educators like Helen Sumner drew attention to the impracticality of things literary. Attention was also focused upon training a "vocational student," who supposedly would not respond to the literary curriculum. A number of educators raised the question of whether strict trade training would enable students to attain full human potential and enable them to function responsibly in a democracy. Charles Judd and John Dewey were among those who argued for democratic education. Dewey's writing indicated ways in which a compromise could be worked, so that while industrial skill needs could be met, students could also be taught to think and perform with sound critical judgments.

Spokesmen for the various twentieth century educational movements tended to articulate the relationships between literary and vocational study in terms of the unique concerns of their educational interests. For example, adult educators examined how the working adult responded to courses in literature and how his classes fulfilled needs arising from the impersonal nature of industrial labor. Junior college educators were concerned with the dual obligation of preparing their students for senior college and for work; they devoted attention to motivating the "vocational student" to study literature. English teachers in vocational schools were interested in arranging courses so as to give their students adequate exposure to ideas fundamental to liberal education.

English teachers also developed specialized interests which narrowed upon a preoccupation with classroom techniques touching upon literature and vocation. Their articles discussed the project method, booklists, the exploration of industries, and the utilization of student vocational interests. They saw vocational education and guidance as being within the province of their discipline. A number of them used for guidance a genre of fiction, the "vocational story," which has been criticized on the grounds of its subliterate features. Discussions by English teachers contained many useful technical suggestions and revealed a number of methods for correlating vocational with literary study; however, for theoretical insights, one must turn to Dewey and the others. Finally, it could be argued that to the extent that the writings of the English educators and the others replaced the broader, more philosophical concerns of the nineteenth century literary spokesmen, there has been something of a loss.

Implications of the Historical Summary

Certain of the arguments and points of view presented throughout the investigation suggest a way of observing the current basis of the separation of vocational from liberal arts education. If the literary and mathematical "liberal arts" influence thinking "whenever thinking is done," as Van Doren has contended; and assuming that vocational education often tends not to impart these liberal arts; then, there are further grounds for making changes in cases where there exists a separation of the liberal arts from vocational education.

The present study has not attempted to make empirical statements about the quantity or quality of literary education in specific vocational schools or in other forms of non-academic tracks. Yet estimations can be derived from the more general data that do exist. For example, ways of esthetically approaching all types of experience. Literary concepts such as Eliot's literary explanation of the objective correlative are also helpful. For example, Eliot's idea of outer experience as expressing inner emotion can be conceptualized in terms of the expressive behavior of vocational performance. Implying a heavy cognitive orientation, lecture might be a necessary preliminary in having students understand such esthetic-vocational concepts.

Suggestions for Additional Research

Since an historical investigation such as the present has to be broad in scope, there are some limitations which are obvious. The obligation to include the various related studies and events has precluded using more narrowly defined methods of research. With an initial study such as the present, one cannot explore the various facets which might be gained through a testing of more refined, expanded terms within the topic; nor can one arrange a creative conceptualization. Also, as has been mentioned, an initial study can hardly explore the details of thought and application which could be discovered within certain of the correlations which have been uncovered.

Thus there are various types of scholarly activity suggested by the further exploration of each of the various relationships between literature and vocation. The research possibilities could range from formal to informal. An example of a type of informal research is in the area of directive and nondirective counseling and would involve the preparation of vocational guidance materials; the challenge of such a project would lay in the identification of useful boundaries in the selection of the literary items.

There are more formal types of study which are related to the present study. For further illumination of the relationships between practical experience and literary expression, an analysis might be made of Henry David Thoreau's Walden. Thoreau referred in this work to the possibility of everyday experiential encounters with a kind of divinity equatable to poetic expression; the language which he used to describe this potential was suggestive of philosophic idealism. Yet Thoreau was by his personal nature so attracted to practical experience that it would be difficult to contend that the material world was a lesser reality for him. Rather, he had to adjust his professed idealism to his practical nature; the kind of striving described throughout Walden is an expression of the importance of meaningfully conjoining a reflective idealism with one's work. Thoreau's writing suggests ways of searching for the boundaries of an esthetic, poetic dimension to the practical details of "getting a living," as Thoreau put it. The study of Walden might include a detailed analysis of various structures within the book; of Thoreau's juxtapositions of his "poetic" generalizing and reflection in connection with his descriptions of his daily work; the organization of his daily work so as to allow for reflection; and Thoreau's exploration of various means for expressing an esthetic response to his daily activities, as suggested by the language of Walden.

One other area of formal research will be mentioned. There could be various forms of investigation of the connections between esthetic predisposition and behavior and vocational background. One direction might be to identify the full range of relationships between esthetic predispositions and the mental habits derived from vocational performance. Or the esthetic elements of specific occupations might be explored. The concepts

discussed in Dewey's writings, including Art as Experience, might provide the tools for analysis in such an undertaking. Another approach to this type of topic might be to examine literary response in terms of the occupational backgrounds of the respondents. The information derived from such a study might serve the useful purpose of alerting English teachers to certain predispositions in their students which might have to be modified before there can be appreciation of types of literary works.

AN INVESTIGATION OF PRE-VOCATIONAL WORDS IN SEWING FOR EDUCABLE MENTALLY RETARDED GIRLS

Hupka, Mary Robison
M. S.

University of Kansas
1970

At the time the study presented in this paper was designed it was assumed that the outcome would be a pre-vocational word list for teaching sewing to junior high educable mentally retarded girls.

The project consisted of selecting two very basic dress patterns that junior high educable mentally retarded girls would probably be capable of constructing. The two patterns selected were McCalls pattern 9571 and Simplicity pattern 8613. The words which were found in the instructions accompanying the patterns were used to prepare a frequency count. This was done by punching each word onto an IBM card and then using the card sorter to get an alphabetized list of the words which were in the pattern instructions.

After getting the list of words and their frequency the list was compared with several pre-published vocabulary lists. The purpose in making this comparison was to see which of the words in the sewing list were found in lists of words which authorities in the field of education suggest junior high educable mentally retarded girls should know.

As a result of this study which was designed to determine a vocabulary list for use in teaching sewing to junior high educable mentally retarded girls several conclusions can be drawn.

First, the study failed to reveal a group of words with high frequency of occurrence to merit the teaching of them before a sewing unit is started. Therefore, a list for use in readiness activities and as a basis for a pre-vocational vocabulary list could not be compiled.

Second, in comparing the two patterns used in the study, one finds that the highest frequency words are different for each pattern. Therefore, one should assume that the vocabulary should be taught according to the pattern being used rather than from a list of general sewing terms.

It is the investigator's recommendation that a beginning sewing unit be taught to the class on a step-by-step basis following the instructions accompanying the pattern. This method of presenting the directions will give excellent opportunity for demonstrations and for the explanation of new terms. It should also be kept in mind that the girls will recognize some of the words but they will need an explanation of the terms as they relate to sewing.

It is the investigator's sincere hope that the material presented in this paper and the conclusions which have been drawn will be of some help to those who may be working on a sewing program for junior high educable mentally retarded girls. Even though the method of teaching suggested in this paper takes advantage of auditory and visual channels of communication it will probably be necessary for the material to be presented several times for maximum comprehension to be achieved.

AN EXAMINATION OF THE STABILITY OF CAREER PREFERENCES OVER TIME OF ELEMENTARY CAREER EDUCATION STUDENTS

Larsen, James E.
M. S.

University of Kansas
1974

The purpose of this study was to investigate the effect of the Lawrence Elementary Career Education Program on the stability of vocational preferences over time of sixth grade children; and to infer from these findings the effect of the program on the vocational maturity of these children.

Twenty-five experimental children experienced strong career education emphasis in the fifth and sixth grades. They completed the Elementary Evaluation Test both at the end of the fifth grade and the end of the sixth grade, and for the purposes of this study certain of their responses were compared and quantitatively expressed over the two administrations. Twenty-one control students from Manhattan were administered the questionnaire at the same times. There was no instruction in career education in this group.

Stability of preferences were measured in two ways, first, a series of nine groups of five occupations was introduced and the student was to identify his most preferred choice and his least preferred choice in each group. These responses were compared over two testings with an interval of one year between tests. A similar comparison was made for the final question which asks for the students' most preferred occupation.

The review of literature focused on the definition of vocational maturity and its measurement. Career education goals were examined and their relationship to the elements of vocational maturity noted. Related studies examined other attempts to affect measured vocational maturity.

All null hypotheses were accepted and the attendant conclusion must also be accepted that the Lawrence Career Education Program did not influence vocational maturity in ways sampled by this study.

A MODEL FOR AN IN-SERVICE PROGRAM FOR TEACHERS OF EDUCABLE MENTALLY RETARDED CHILDREN: A PROCESS APPROACH

Martinez, Kenneth Arnold
Ed. D.

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1971

Statement of the Problem

Literature indicates that there are many shortcomings in in-service programs to date. This study was concerned with determining whether an in-service program which eliminated the shortcomings might be developed which would promote professional growth in teachers while also improving the academic skills of students.

Procedures

An in-service program was developed, using a Curriculum Process Model developed by Dr. Parley Rogers at the University of Kansas, which eliminated the shortcomings of past in-service programs. The program was then implemented in a large metropolitan school district during the summer of 1970 using fifteen teachers of educable mentally retarded children ranging in CA from 8.11 to 11.4 and in IQ from 50 to 75. The program was conducted over a six week period.

In an effort to evaluate the effectiveness of the program pre-tests were administered to determine: (a) teacher attitudes, and (b) student achievement in reading prior to the beginning of the program. Post tests were administered (to determine change in teacher attitudes and student achievement); (a) immediately following the end of the trial, and (b) seven months following the end of the program.

A variety of statistical devices were used to analyze the data. These devices included: (a) the Fisher "t" for related and correlated means, (b) the Spearman Rank Correlation for untied and tied ranks, (c) the Kendall Coefficient of Concordance, and (d) the Fisher Exact Probability test.

Findings

The attitudes of the teachers did not change significantly during the period of time they attended the in-service program, but their attitudes did change significantly to a more positive one during the seven months following the program. No significant relationship was found between attitude change and the teacher's ability to use the material used in the in-service program. No significant difference was found between the attitude change of teachers and the type of preparation they had received and the amount of teaching experience they had had. The students who were used in the study gained significantly in the reading achievement during the period of time they were in the program. They also retained the gain made for a period of seven months, but they decreased significantly in the rate of learning over the same period of time. No significant difference was found between homogeneous and heterogeneous grouping and achievement gain.

Conclusions

The program could be considered effective in that; (a) the shortcomings noted in the literature were eliminated, (b) the professional growth of the teachers was realized, and (c) the students gained in reading skills.

Future applications of the in-service model developed should provide for the evaluation of the effectiveness of the in-service program on the achievement of the students of the participants during the regular school year.

A COMPARATIVE STUDY OF THE OCCUPATIONAL ASPIRATIONS
AND INTERESTS OF HIGH SCHOOL AGE EMOTIONALLY
DISTURBED, VOCATIONAL-TECHNICAL AND
REGULAR ACADEMIC STUDENTS

Plata, Maximino
Ph. D.

University of Kansas
1971

Statement of the Problem

School administrators need information about their students for the purpose of developing comprehensive vocational education programs for handicapped youth. The purpose of this study was to compare the levels of occupational interests and aspiration of two groups of secondary male emotionally disturbed students with two groups of normal secondary male students. Additionally the anticipated level of occupational attainment was obtained from teachers and ward personnel for their disturbed students.

Procedures

The following procedures were used in carrying out the study:

(a) Students. Four groups of male students were randomly selected from public school populations. One group of students was selected from a regular academic program (Regular Academic Group). A second group was selected from students enrolled in an area vocational school (Vocational-Technical Group). The third and fourth groups were selected from the male students enrolled at a special school for the secondary emotionally disturbed. One group of students was receiving psychiatric treatment in the hospital setting (Institutionalized Emotionally Disturbed Group), while the fourth group of students was non institutionalized and was not enrolled in regular public school programs (Non Institutionalized Emotionally Disturbed Group).

(b) Instruments. The Occupational Interest Survey: OIS (Kuder, 1968) and the Occupational Aspiration Scale: OAS (Haller, 1961) were administered to students of each group. An adapted version of the OAS was administered to teachers and ward personnel.

(c) Research Design. A 4 X 2 X 2 multifactor design with fixed effects and with repeated measures was used to analyze the students' scores on levels of occupational aspiration. The Pearson product-moment correlation technique was used to compute the relationship of the students' measured levels of occupational aspiration to the predicted scores on level of

occupational attainment by teachers and ward personnel. The .05 level of confidence was selected for rejection of all null hypotheses. The Newman-Keuls technique was used to test differences between means.

Findings

The Regular Academic Group aspired to more prestigious occupational positions than did the other three groups, Vocational-Technical, Institutionalized and Non Institutionalized Emotionally Disturbed. This group was consistently and significantly higher on all levels of occupational aspiration, realistic and idealistic on the two time dimension periods. The only other significant difference occurred between the Institutionalized and Non Institutionalized Emotionally Disturbed Groups on the realistic and idealistic levels of occupational aspiration. There were no significant differences between the Vocational-Technical Group and the two disturbed groups on all levels of occupational aspiration. Significant interaction effects were found between the time dimension periods and expression levels (Realistic and Idealistic). Nonsignificant interaction effects were found between subject groups and time dimension periods; subject groups and expression levels; or between subject group, time dimension periods and expression levels. The prestige of the occupations representing each group's occupational interests was consistent with the prestige of the occupations representing each group's occupational aspirations.

Significant relationships were found between the students' scores on levels of occupational aspiration and the teachers' scores on predicted levels of occupational attainment for their students. Significant relationships were found between student-ward personnel responses on the same variables. Nonsignificant differences were found between the correlations coefficients of student-teacher responses and the correlation coefficients of student-ward personnel responses.

Conclusions

The occupational aspirations of the Institutionalized and Non Institutionalized Emotionally Disturbed Groups are just as realistic as the occupational aspirations of the normal groups if one considers the Vocational-Technical Group as normal, and if one considered the predicted manpower needs.

Furthermore, two other facts support this conclusion: (a) only those individuals who can "face reality" are recommended to attend school by the psychiatric personnel and (b) the students' aspirations are in tune with the predicted level of occupational attainment by teachers and ward personnel for their students. The OIS and/or the OAS are instruments which may be used by educators and other vocational personnel for the purpose of counseling high school youth who are job bound.

MANUAL DEXTERITY IN THE TRAINABLE MENTALLY RETARDED

Regan, Madelyn K.
M. S.

University of Kansas
1970

In an investigation of manual dexterity in the trainable mentally retarded, 100 students (ages 6-21, IQ 25-55) of public school special education classes were given the Purdue Pegboard by the three-trial-administration method. The data was examined to determine the effect of age, school experience, and sex on manual dexterity scores.

A single-classification and analysis of variance was used to explore the first hypothesis, that dexterity performance does not differ significantly with increase in age. Significant differences (the majority at the .01 level) were found between all age levels except for the R + L + B scores of the Level III and Level IV groups. The first hypothesis was rejected.

In comparing special education experience versus non-special education experience, there were no significant differences found between the two groups on the R + L + B and the Assembly subtests. Two years experience in a public school special education class did not influence manual dexterity. The second hypothesis, that previous experience in public school special education classes does not significantly increase dexterity performance, was accepted.

The thirty-eight female retardates failed to score significantly higher than the 62 male retardates on all subtests, contrary to established norms. The female trainable mentally retarded did not score significantly higher than males in manual dexterity. Therefore, the third hypothesis was accepted.

Limitations of the Study

Several limiting factors operated throughout the present study. First, institutionalized trainable mentally retarded subjects were not included in the test population; all of the subjects lived at home with parents or relatives. The effect of the milieu of an institutional setting as opposed to the environment of the community setting could not be determined.

Secondly, due to the limited number of sheltered workshop facilities in existence in the Wyandotte County and Johnson County areas, the majority of trainable mental retardates, age sixteen and over, had been institutionalized or remained at home twenty-four hours a day without professional services (Payne, 1967). As a result, workshop-age subjects

were difficult to obtain. The local school programs, selected for the study, enrolled clients only to age 21; hence, the oldest subject in the test sample was 20 years, six months. The findings might have lead to different results had the workshop-age subjects been older.

Thirdly, the most extensive experience in public school special education classes possible was two years due to the newness of the programs available in Wyandotte and Johnson County. Since slowness in learning is an evident characteristic of the trainable mentally retarded, two years attendance in any program may not be long enough to judge its efficiency.

All of these factors merit consideration in evaluating the results of this study.

Implications of the Study

Although studies have been done on manual dexterity with adolescent or adult, moderate or educable mentally retarded, no such comprehensive investigations have been attempted on the full range of the trainable mentally retarded. For this reason, the present study should prove to be relevant for educators in the field of mental retardation. Research has revealed that many educable mental retardates can compete in industry, but the low-level retarded, below IQ 60 have no recourse for employment but the sheltered workshop (Cantor and Stacey, 1951). The present study indicated that maturation alone did not increase manual dexterity sufficiently to consider competitive employment with normals. Employment opportunities must be found in a sheltered workshop setting for these individuals or institutionalization usually occurs.

The data clearly points to the fact that much emphasis in public school special education curriculums must be designed to strengthen motor skills. This should begin during the early school years, and will eventually lead to fostering appropriate work habits. This type of program would prepare the trainable mentally retarded child for successful and fruitful employment in a sheltered workshop as an adult as well as a contributing member of the community. As mentioned above, adequate job training may prevent future institutionalization of low-level retardates.

Evidence was also presented that trainable girls can be expected to be able to perform the same manipulative tasks as trainable boys. Classroom manual dexterity training is as important for girls as it is for boys, if girls are to become successful employees.

The application of the findings of the present research cannot be fully implemented without additional information. Carefully controlled research is needed to determine precise sequential methods of developing manual dexterity. More studies should be made on the improvement of manual

dexterity through training and its relationship to job effectiveness. Answers are urgently needed in these untapped areas of experimentation.

A SURVEY OF THE POST-HIGH SCHOOL OCCUPATIONAL AND
EDUCATIONAL ASPIRATIONS OF 1971 KANSAS SENIORS:
COMPARISON BY SIZE AND GEOGRAPHICAL
LOCATION OF GRADUATING CLASS

Stremel, Jerome F., Jr.
Ed. D.

University of Kansas
1971

Statement of the Problem

This study was aimed at determining the post-high school occupational and educational aspirations of 1971 Kansas high school seniors in terms of generating normative data, determining differences in aspirations on the basis of graduating class size and geographical location, and comparing the results of this study with a 1963 study of Kansas high school seniors.

Procedure

A stratified proportional sample of one-third of all the public and non-public high school districts in Kansas was selected in terms of four strata of high school graduating class sizes and eleven geographical regions of the state. A 66 item questionnaire pertaining to occupational and educational aspirations was administered to the Kansas high school seniors in the sample during October, 1970. This procedure resulted in 11,065 survey responses available for analysis.

The responses to the 66 items of the survey were reported in terms of percentages of males, females, and the group as a whole and are considered to be Norms for 1971 Kansas High School Seniors. Nineteen selected items from the survey pertaining to occupational and educational aspirations were also reported in terms of percentages for graduating class size and geographical region. Common items from the present study and a comparable 1963 study of the post-high school aspirations of Kansas high school seniors were treated statistically using Chi squares, analysis of variance, or tests to determine significant differences in percentages.

This study resulted in the generation of voluminous data that requires the examination of scores of tables for interested readers. Representative findings follow.

Findings

About 74 percent of the sample indicated that they planned to enroll in further education or training after high school, about 15 percent indicated full-time employment, about 6 percent indicated entrance into the military, and about 5 percent indicated that they would probably become housewives and not enter school or employment. When the percentage of students from the present study who planned to attend further education or training (74 percent) was compared with the percentage of students from a 1963 study who planned the same activity (82 percent), a significant difference at the 1 percent level was evidenced.

Eighty-eight percent of the respondents planned to attend post-high school educational institutions within the state. This planned in-state attendance was significantly different at the 1 percent level from the 76 percent of respondents from the 1963 study who planned the same activity.

Those respondents planning post-high school education or training were distributed by type of institution as follows: (1) public junior colleges, about 28 percent; (2) public universities, about 26 percent; (3) public colleges, about 14 percent; (4) public vocational-type schools, about 12 percent; (5) public teachers colleges, about 3 percent; and (6) private vocational-type schools, about 9 percent; private four-year liberal arts colleges, about 5 percent; private universities, about 2 percent; private two-year liberal arts colleges, about 0.50 percent. This distribution of planned post-high school educational attendance was compared with planned attendance patterns of 1963 Kansas high school seniors and resulted in a statistically significant increase for the 1971 group for public junior colleges (from 13 to 28 percent). Statistically significant decreases of the 1971 group over the 1963 group were noted for public teachers colleges and all types of private institutions except private vocational-type schools.

The three most frequently planned occupational choices of those respondents planning full-time employment or marriage immediately after high school were: males - auto mechanics (14.15 percent), farming or ranching (13.08 percent), and self-employed (4.27 percent); females - housewife (16.46 percent), secretary (14.99 percent), and clerk-typist (6.24 percent).

A STUDY OF THE INFLUENCE OF VOCATIONAL AND OCCUPATIONAL
EXPLORATION AND SELF-APPRAISAL ACTIVITIES UPON THE
VOCATIONAL CHOICES AND VOCATIONAL
INTERESTS OF HIGH SCHOOL SENIORS

Zenger, Weldon F.
Ed. D.

University of Kansas
1970

Statement of the Problem

The scientific and technological advancements of the times seem to have made the difficult task of choosing a vocation not only more difficult but even more necessary. The purpose of this study was to investigate the influence of a class in vocational and occupational exploration and self-appraisal activities upon the vocational choices and vocational interests of high school seniors.

Procedure

The subjects for this experiment were 72 high school seniors, 36 of whom were used as the experimental group and 36 as the control group. Both groups stated their three vocational choices at the beginning of the experiment (September), at the end of the experiment (May) and one year following the experiment (May, one year later). The experimental group completed a series of interest and aptitude tests at the beginning of the experiment and one interest test at the end of the experiment. The experimental group then intermittently explored occupations of their choice throughout the experiment. A certified school counselor was in charge of the vocational exploration, and also interpreted the test results to them at the appropriate times.

The sign test and a test of the difference between correlated proportions were used to test the 11 null hypotheses.

Findings

It was found that the experimental group made a significantly greater number of vocational choice changes at the end of the experiment. There was no significant difference in the number of vocational choice changes between the experimental group and the control group one year following the experiment. There was also no significant difference in the number of vocational choices between the two groups from the beginning of the experiment to one year following the experiment, a period of 21 months.

There was a significantly greater number of disagreements than agreements between the Kuder Preference Record Classifications and vocational choices of the experimental group at the beginning of the experiment, but not at the end of the experiment.

It was also found that students who were in the experimental group chose employment less in agreement with their vocational choices than those who were in the control group. There were considerably more, however, in the control group who were unemployed.

Conclusions

1. That high school seniors tend to change their vocational plans more while they are exploring vocations and occupations as well as their own interests, aptitudes, and abilities.
2. That the vocational and occupational plans of high school seniors tend to show a great deal of variance over a period of 21 months.
3. That a class in vocational and occupational exploration for high school seniors does not appear to have much effect upon the stability of their vocational choices after they leave school.
4. That high school seniors tend to work more after leaving school whether or not the work agrees with their vocational choices, if they had worked during their senior year on jobs that did not agree with vocational choices.
5. That vocational interests and vocational choices of high school seniors tend to become more in agreement after they have explored vocations and occupations as well as their own interests, aptitudes, and abilities.

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A DESCRIPTION OF THE EMPLOYMENT STATUS OF THE GRADUATES OF A SMALL HOSPITAL SCHOOL OF NURSING

Baxter, W. Eugene
M. S.

Wichita State University
1969

One of the most if not the most critical problem facing our health care delivery system today is the shortage of nursing personnel. There needs to be some way of encouraging inactive nurses to return to work and also relieving some of the problems faced by the working nurse-housewife-mother so that more personnel are available to fill our health care needs.

This is the problem discussed in this thesis study. It seeks to acquire responses from Registered Nurses about their family, and career activities and responsibilities. This was accomplished by mailing a questionnaire to 265 graduates of the 40 year old William Newton Memorial Hospital School of Nursing, Winfield, Kansas. The response was excellent, almost 80 percent returned the questionnaire.

The questionnaire asked about the graduate's present nurse status, type of employment if working, reasons for not working, need for a refresher course and attitude about additional education.

It was hoped that through a study of the responses that some new understanding might appear to help overcome the problem. We need to know why some nurses are active, why they work or why they don't work.

Though nursing is considered to be a very rewarding career, it is a profession that demands much from the participant. In order for the nurse to keep up with the rapidly changing medical improvement she must participate in regular inservice training or go through extensive refresher training when she returns to nursing. Another demanding factor in nursing is that it isn't always possible to work at what are considered normal working hours. The day shift is the prime time but she may find that the only positions open are in the evening, night or weekends...just when the married nurse is needed most by her family.

Conclusions

1. Eighty percent of those graduates responding to the questionnaire are presently employed in nursing. We would have to assume that many of the non-responders are no longer working or interested in nursing.
2. Of the total valid questionnaires sent out 67 percent were returned prior to computation time. This was considered a good response.
3. Those graduating 6 to 10 years ago showed the lowest percentage of the respondents presently employed. This would be in the age bracket of those with young children. This is one obvious problem that is difficult to overcome.
4. Another noticeable group not working now are those who graduated 21 to 25 and 26 to 30 years ago. Only approximately 70 percent of this group is employed compared to the average of 80 percent for all graduating groups.
5. Hospitals by a very large percentage are the principal employers of the group responding. This percent decreases and employment in doctors' offices increases the longer the period after graduation.
6. Those nurses graduating just after World War II years 20 to 24 years ago were unusual in several ways. (a) A much higher percentage of them are working in hospitals now than in the 15 years preceding or following. (b) One hundred percent of the group are married and all but one of the group has children. Only two other groups were all married. (c) They were the second highest group listing "Family Responsibilities" as a reason for not working. (d) Fewer of these than any other group have sought additional education.
7. "Poor working hours" was the reason given by the group graduating 16-20 years ago. Eighty-nine percent reported having children under 18 years of age. This would obviously be another problem.
8. Inactive nurses indicated that only about 20 percent of those responding would be concerned about needing a refresher course if they went back to work. Those feeling the need the greatest were in the 21-25 years-since-graduation group discussed in number 6 above. The trend of needing a refresher did not show a greater need in the three later five year periods.
9. Only 34 percent of the oldest group received a refresher course when they returned to work. This would leave the remaining 66 percent incapable of meeting today's nursing needs.
10. Responses showed a greater hesitation on the part of those living in the city to return to work than in the small community. Only 18 percent

of those returning to work in the city received a refresher course. None of those in the community of 5 to 10,000 received a refresher.

11. With the exception of those who graduated 26 to 30 years ago, less than 37 percent have sought additional education. Sixty-two percent of those graduating during the World War II years, 1941-1945, have sought additional education.

12. An average of 78.5 percent of all graduates responding reported feeling a need for additional education. The group with the highest percentage feeling the need was that mentioned above in 11 who graduated 26 to 30 years ago. One hundred percent of the group felt the need.

13. Only a small percentage, 4.3 percent, have earned a bachelor's degree and only one has a master's.

Recommendations

An evaluation of the study confirms much of our previous thinking. Unfortunately, no real significant new findings appeared from the study that will contribute to keeping nurses on the job. The problem of home responsibilities proved to be the most important objection.

For the day and evening working mother, the in-hospital nursery service is a great help. This apparently relieves the mother of many worries. For the mother with school age children, there is nothing yet available to meet her children's needs before and after school. Perhaps some type of recreation program should be considered for them with a trained social recreation director.

The study supported that a strong push should be exerted on those who graduated 25 to 35 years ago to get them back to work. They, apparently have fewer home responsibilities. Perhaps a refresher course designed just for this age group would appeal to them. As the greatest employer of nurses, the hospital should take the responsibility for recruiting and reactivating the inactive nurse. The study showed that compared to the total number of hospitals very few are now giving refresher courses routinely.

As a prerequisite to returning to work all hospitals, for the safety of their patients, must give every inactive nurse a refresher course. The inactive nurse is not always capable of evaluating whether she needs it or not.

Nurses of all ages should be encouraged to take college courses when possible. It has been proven that a person with an active mind makes a better employee.

Though these problems and recommendations are perhaps not new, this study has helped to look in depth at the problems and conclude with some recommendations. It is our hope that someone after reading these results will be stimulated to further study of this very broad and desperate problem.

The main reasons a nurse does not work should never be for lack of a refresher course or desirable hours for both the nurse and the hospital. There are too many persons depending on the nurse for life saving competent skilled nursing care.

THE INFLUENCE OF CERTAIN DEMOGRAPHIC CRITERIA ON THE CHANGE IN NUTRITION HABITS OF THE UNDERPRIVILEGED IN THE EXPANDED NUTRITION PROGRAM

Hodges, Jean Reneau
M. S.

Wichita State University
1970

Literature reviewed on induced change in human behavior indicated that there are various models of change which contain many common components. The models discussed are those of the congruity, cognitive dissonance and balance approaches. Such factors as the small-group, innovation, learning and conditioning and inter-personal influence are also vital concerns of the individual interested in promoting change in human behavior. Those conditions of each factor which might be applied to the Expanded Nutrition Program were described in detail in the review of literature.

The research for this paper was based on such demographic data as age, use of commodities, welfare, marital and employment status, number of children, income and education. Teaching methods were also analyzed.

Two hundred and sixty-two family records were analyzed for this research. T scores were computed from the means and standard deviations of the groups who did and did not receive welfare, commodities, and teaching by film. T scores were determined in the same manner for those people who were and were not employed.

The data for the two hundred and sixty-two families on age, education, number of children and number of parents present was analyzed by multiple regression correlation.

The variables of welfare and use of commodities were found to be significant in actual change in behavior, as well as in gain in nutrition knowledge. The variable of employment status was also significant in performance on the nutrition test, but not in favorable change in actual behavior.

The factors of teaching method, age, number of children, number of parents in the home and education were found not to be significant on either behavior or gain in knowledge.

The review of literature contained references to personal interaction between individuals such as faith of the subject in the change agent, influence of the practitioner's personality, the practitioner's wish to really help the subject, and the interaction between individuals in small groups, as being common factors in changing behavior.

Such factors as employment status, age, number of children, and education are established facts which do not necessarily involve personal interaction with the change agents of the program. This may be a contributing factor to their lack of significant correlation to change in behavior. The correlation of use of commodities to change in behavior already discussed involves the interpersonal contact between change agent and client since the change agent teaches how the commodities may be used through the demonstration method.

The successful methods of induced human change which are most frequently referred to in research all seem to involve interpersonal contacts of various types. Demographic data such as that mentioned in the preceding paragraph undoubtedly have some influence, but as confirmed by the research of this paper these factors each seem to hold little significance.

The Expanded Nutrition Program would seem to offer an excellent opportunity of correlating the personality and abilities of program assistants as determined by psychological tests, with the change in behavior of the families with whom they work. A number of areas, for example, the North Central Region involving several states would have to combine aides' scores and use a specified number of each assistant's families in order to have a statistically significant number of aides.

A test defining whether a program assistant was outgoing, intelligent, emotionally stable, aggressive, enthusiastic, persevering, venturesome, empathetic, etc. could be given to establish a profile of each assistant. Then the personality score of each aide could be compared with the change in behavior which she is able to promote in the families with whom she works. Perhaps certain types of aides might work better with families with certain characteristics. That is, a very aggressive assistant might produce better results in a family in which there is no

father than one who was less aggressive. It might be found that assistants with certain characteristics might be able to promote greater change with all the families with whom she works. For example, the aide who scores high in the characteristic of being outgoing, warmhearted and participating might possibly work better with all types of families than one who was reserved, detached, and cool.

Such research would prove valuable not only for the Expanded Nutrition Program but for the whole area of induced human change.

AN EXAMINATION OF THE RELATIONSHIP BETWEEN SELECTED FACTORS AND EDUCATIONAL AND OCCUPATIONAL ASPIRATIONS

Karlin, Caroline Sue
M. S.

Wichita State University
1972

The purpose of the thesis was to examine the technique of path analysis by investigating the multiple variate relationships pertaining to occupational and educational aspirations, as delineated in the theoretical literature. Path analysis was used as an exploratory technique which combines theoretical specifications (in the development of the model from theory) with statistical analysis, and allows for the interpretation of relative strengths of influence, both direct and indirect, of the variables in the system. Since the theoretical model is tested "for goodness of fit" with actual data, the results are data bound to that set of data. Thus, although no broad generalizations can come from such an analysis, it does allow systematic analysis of data and development of more sophisticated multiple variable relationships.

The findings of this study lend partial support to both the theoretical model proposed by Rehberg, et. al., (Model I) and the one by Yoesting, et. al., (Model II). (Refer to original thesis for the models). The ordering of SES-Educational Aspirations-Intelligence, as proposed in Model I, was supported; as well as the direct path from SES to Intelligence (Measured Ability). Although the path from Intelligence to Mobility Attitudes in Model I did not prove significant in this study, this may reflect the inadequacies of substituting Mobility Attitudes as a measure of Attainment more than the actual relationship between Intelligence and Attainment. The main differences between Yoesting's model and this study centered on occupational aspirations and on significant others. In this study parent and peer, rather than just peers, had an influence on educational aspirations. The

perception of parental and peer influence on occupation plans was not found to be related to occupational aspirations at all, but were related to educational aspirations in a negative direction. Finally, a path between SES and educational aspirations was supported in this study, but the direction of influence was negative as opposed to the positive direction found by Yoesting. On the whole, the magnitudes of the path coefficients in the Yoesting study were greater than those obtained in this set of data.

There are a number of limitations in this study which should be noted. This was not a longitudinal study, and therefore there was no measure of actual attainments after a period of years. The results would suggest that the substitution of mobility attitudes for actual mobility experience was a decided limitation. Another limitation has to do with the method of operationalizing the "significant other" categories. Influence toward a goal or end can be exerted by others in either a positive or negative direction. However, it is not possible due to the way the data were collected in the original study, to distinguish the direction of this perceived influence. In addition, it is still not clear as to whether it might not have been better to reduce the number of significant other variables to four or to a single composite of significant others as was done in the earlier cited study by Sewell, *et. al.*, on which the Yoesting, *et. al.*, study was based. Also it is possible that some of the eight significant other variables tapped the same thing, but the extent and overlap are not known.

The revised models (Model III 2-.05 and Model III 2-.01) represent the best fit of variables in the utilized data set at the two levels of significance. As a result of the findings of this study certain recommendations for future study would seem in order. There is an obvious need for more longitudinal studies in this area so that actual measures of attainment can be considered. Likewise, a better measure of Intelligence, rather than Measured Ability as was substituted in this study, would help to establish the relationship between Intelligence and Attainment more explicitly. Since little actual variance was explained and since some of the residual coefficients were intercorrelated, it is obvious that other significant variables need to be added to the system, as well as possibly improving the techniques for measuring those factors, before a more complete theory of occupational decision-making can be determined. Certainly, this must be done before any causal inferences can be made which might be useful in helping individuals make a more rational choice.

COMMUNITY, PARENTAL, AND TEACHER ATTITUDES
TOWARD SECONDARY EDUCATION FOR THE
EDUCABLE MENTALLY HANDICAPPED

Mierau, Thomas B.
M. S.

Wichita State University
1974

The research proffered a comparative study of parental, professional, and community attitudes toward the establishment of senior high school special education classes for the educable mentally handicapped and toward the curriculum development within these classes. The purpose of this study was to aid special educators within USD 282, Howard, Kansas, to make program and curriculum decisions that would enlist the support of the community.

A questionnaire was mailed to a random sample of 188 adult residents within USD 282 and USD 389 (Elk and Greenwood Counties, Kansas), distributed to 45 secondary teachers within the two districts, and used as a guideline to interview 11 parents of EMH students within USD 282. The results showed that the residents favored: 1. the local public schools providing classrooms with trained teachers for the high school EMH student within the main school buildings; 2. the EMH students being considered individually and the individual's course plan developed accordingly; 3. the student being prepared to cope with the practical aspects of daily living upon graduation from the special program; 4. the EMH student receiving a high school diploma upon completion of the requirements for graduation from the special program.

Of the 188 questionnaires mailed, 68 were returned in the mail leaving an overall return rate of 36 percent. The low return rate prompted a sampling of the persons failing to return the questionnaire. The results of the telephone interviews supported the results of the mailed questionnaire.

SEX OF STUDENT AS A VARIABLE IN INTERVIEWER
RECOMMENDATION OF OCCUPATION

Salberg, Marlene Sue
M. S.

Wichita State University
1973

Ten male and 10 female volunteer college psychology students served as accomplices and presented an occupational choice problem--engineering and nursing--to 20 male and 20 female students serving as interviewers whose task it was to assist the accomplices in making a decision. Each student met with a male and a female interviewer. The data did not support the hypothesis that male students would be advised to go into engineering and that female students would be advised to go into nursing. The hypothesis that male students would be viewed as having a more important problem and as presenting it more seriously and concisely was not supported. Some of the factors to which the interviewers responded regarding whether they had been considered during the interview were significant of suggestive when analyzed as sex of student by response. Analysis of the occupational choices of interviewers who had considered the factors provided non-statistical information and permitted speculation about sex bias in interview type interaction.

While the present study suggests that therapists trained from a current population of university psychology students might reject some of the more obvious sex-role stereotypes, such as those dealing with occupational choice and opinion of the student's occupational problem, it is possible that these students, after formal clinical training, would not retain these characteristics of the population of undergraduate students who have received no formal therapy training. It is also possible that more subtle tasks, even when presented to interviewers recruited from the same population of undergraduate psychology students, would indicate interviewer sex biases. Studies in which additional variables, such as theoretical orientation and social viewpoint of the therapist and a variety of client problems, are studied, should add to the present study and help build an empirical base for psychotherapeutic interaction in which the therapist is the same sex as the client and psychotherapeutic interaction in which the therapist is of the opposite sex.

The significant chi-square for sex of student by interviewer response to whether type of colleagues had been considered suggests that male and female students are regarded differently by interviewers. The significant chi-square for sex of student by interviewer response to whether independence had been considered suggests the relevance of dyad type or interaction in addition to sex of student. Analysis of the occupational choices of interviewers who had considered factors listed on the questionnaire

provided non-statistical information about the effects of dyad type in interview type interaction situations.

MEASUREMENT OF JOB SATISFACTION

Swenson, Thomas G.
M. S.

Wichita State University
.1974

The study suggests various conclusions which may be drawn with regard to the hypothesized nature of the concept of job satisfaction.

Hypothesis I stated that job satisfaction is a multi-dimensional concept. Hypothesis II stated that all dimensions of the job contribute equally in the conceptualization of job satisfaction. The Varimax rotation of the factor analysis was performed specifically to test these hypotheses. The interpretation of the Varimax rotation accepted the first hypothesis with the identification of ten discriminably different factors which contributed 70.6 to the variance of job satisfaction. With regard to the second hypothesis the Varimax rotation identified factor percentage contributions to the variance in job satisfaction. These factor percentage contributions rejected hypothesis II due to the significant differences of factor percentage contributions.

Hypothesis III posited that the various dimensions that constitute job satisfaction operate independent of each other. An oblique factor analysis was performed to test this hypothesis. The oblique factor analysis rejected this hypothesis because relevant factor cosines (correlations) among these factors, indeed, identified various primary oblique factors as being correlated: e. g.) a factor cosine of $-.567$ between Work Performed and People co-workers). It is, however, interesting to note that the factor structure of the oblique factor analysis was relatively the same as in the orthogonal factor analysis. Therefore, these dimensions are discriminably different. However, they don't function independently in the conceptualization of job satisfaction.

Hypothesis IV stated that intrinsic dimensions of the job situation contribute more to job satisfaction than factors which are extrinsic to the job situation. The second-order factor analysis tested and accepted this hypothesis. The acceptance of this hypothesis is based on the composition of the primary oblique factors that loaded on the second-order factors. With regard to this, it should be noted that Work Performed loaded $.89214$

on second-order factor I and the primary factor of work performed contained the highest loadings for all of the satisfaction criteria. Therefore, it may be interpreted that second-order factor I, identified as Intrinsic Satisfaction, is highly related to both job and organizational (USAF) satisfaction. Additionally it should be noted with regard to second-order factor II - Extrinsic Satisfaction that none of the primary oblique factors which loaded on this factor contained relevant job satisfaction criteria loadings. However, the oblique primary factor of commitment contained highly relevant loadings for (USAF) organizational satisfaction criteria.

Given the preceding interpretations, hypothesis IV was not only accepted but expanded to read: Intrinsic dimensions of the job situation are highly related to both job and organization satisfaction while Extrinsic dimensions of the job are primarily related to organizational (USAF) satisfaction.

The conclusions of the study may be summed up in four statements: (1) Job satisfaction is a multi-dimensional concept; (2) Job dimensions contribute in varying degrees to the conceptualization of job satisfaction; (3) Job dimensions function dependently in the conceptualization of job satisfaction; and (4) Intrinsic dimensions of the job situation are highly related to both job and organizational satisfaction while Extrinsic dimensions of the job situation are primarily related to organizational satisfaction.

CORRELATIONS OF ATTITUDES AND DEMOGRAPHIC FACTORS OF WOMEN IN BUSINESS

Updegrove, John R.
M. S.

Wichita State University
1974

Traditional sex roles have historically influenced the career patterns of both females and males. Under these preconceived notions the place of women was with the home and family. Today, however, the changing nature of society requires some changes in the attitudes and values regarding the role of women in business.

The intent of this study was to ascertain if perceived attitudes of a woman's role in business could be related to or influenced by the demographic factors characteristic of women in business who have career potential. Demographic data was divided into subsets of measures of success and demographic data. Measures of success were those variables

relating to the business environment, such as total years of work experience, years with the present company, incidence of promotion by that company into the present position, years in a management or supervisory position, and annual salary. Demographic data referred to characteristics outside the business environment, including marital status, number of children, age (of the respondent), and level of formal education achieved.

Attitudinal variables included the perceived attitudes of those around the respondent, including male managers, potential male subordinates, husband (if appropriate), children (if any), and other women in the organization. Also included in attitudes were the respondent's own perceptions of the role of women in business, and a general attitude as to the effect on advancement of being a woman. All of these attitudinal questions were worded to elicit an opinion as to how the perceived attitudes have affected the advancement of the respondent.

The following null hypotheses were generated:

1. There will be no correlations between the attitudes and measures of success.
2. There will be no correlations between the attitudes and demographic data.
3. Variances in attitudes will not be attributed to variances in a combination of measures of success and demographic factors.

The first null hypothesis was accepted. There were no significant correlations reported between attitudinal variables and measures of success variables.

The second null hypothesis was rejected, with significant correlations reported for four variable pairs. Most significant of these pairs is the attitudes of children combined with the number of children. A coefficient of .66 for this correlation was reported. An inverse correlation is shown for the pairing of attitudes of husbands and marital status, with a coefficient of $-.60$. Another inverse correlation is seen between attitudes of children and level of formal education achieved by the respondents, having a coefficient of $-.32$. The last meaningful correlation between attitudes and demographic data is between the attitudes of children and age of the respondents. A correlation coefficient of .26 was reported for this pairing. All of the above correlations are significant at the .001 level.

The third hypothesis, that variances in attitudes will not be attributed to variances in a combination of measures of success factors and demographic factors, was rejected. However, only the criterion variables of the general effect on advancement of being a woman and the attitudes of

children had more than 10 percent of their variance explained by an optimal combination of their respective predictor variables.

Predictor variables used for the criterion variable of the general effect on advancement of being a woman included years of experience in a management or supervisory position, years with the present company, number of children, and annual salary. Together these have a correlation coefficient of .35 with the criterion variable, and account for 12.5 percent of the variance in that criterion variable.

The criterion variable of the attitudes of children has a correlation coefficient of .37 with its combination of the predictor variables of annual salary, marital status, age, total years of work experience, and years of a management or supervisory position. This combination of predictor variables accounts for 13.8 percent of the variance in the criterion variable.

Conclusions

Relatively little support is provided for the general hypothesis that attitudes are correlated with demographic data and measures of success. That a correlation (.66) would exist between attitudes of children and number of children is readily apparent. More children would normally require more time. And to a working mother with career aspirations, this could be thought of as being a handicap. Of the specific negative attitudes of children, the reduced time a working mother could spare for school related activities drew the largest response.

The inverse correlation (-.60) between attitudes of husbands and marital status indicates that married women generally find that their husbands' attitudes are becoming less of a handicap and more of an advantage. Perhaps this is indicative of the gradual acceptance of the changing nature of sex roles. However, husbands still seem to think that their wives' jobs are of secondary importance. On the other hand, husbands are proud of their wives' accomplishments, and want them to be happy. Naturally, husbands are also in favor of the extra income afforded by the working wife.

Another correlation of attitudes of children is seen with the level of formal education of the respondent. This coefficient (-.32) suggests a weaker correlation between these variables. A woman with a higher level of formal education would be more likely to be interested in the pursuit of a career, and would therefore find the housewife role too confining. Here again the time element discussed above becomes involved.

Attitudes of children shows a correlation (.26) with the age of the respondent. As the respondents grow older, the children grow older. As the children grow older they become more independent, requiring less of the working mother's time. Older children may also lessen the burden of

household chores. Children have some pride in their mother's accomplishments, according to 118 respondents. And, like husbands, they appreciate the extra income.

Influences of demographic data and measures of success are also minimal. The criterion variable having the largest percentage (13.8) of variance explained in terms of predictor variables is the attitudes of children. Of the predictor variables, annual salary accounts for the most variance (5.6 percent) in the criterion variable of children's attitudes. The remainder is accounted for by the predictor variables of marital status, age, total years of work experience, and years in a management or supervisory position. Marital status logically has an effect on children's attitudes. Age, years of work experience, and especially years in management would relate to income, which accounts for the most variance in this regression.

The predictor variables of years in management or supervision, years with the present company, number of children, and annual salary account for 12.5 percent of the variance in the criterion variable of the general effect on advancement of being a woman. Years in management would give a woman first-hand experience in advancement policies and practices, as would years with the present company, although to a lesser degree. Discussion above has indicated the effect on advancement of children and their attitudes. Salary was also noted above as a determinant in relation to attitudes of children and husbands. Salary levels in general are also a point of contention for women, with seventy-two respondents reporting being upset by their salary scale.

In light of the above we may conclude that the most noteworthy factor affecting a woman's career is the presence and attitudes of children. The effect of children and their attitudes is modified primarily by age, education, and income levels of the working mothers.

Looking to the future, prospects for women in management should become brighter, at least according to the sample. Only 21 percent of the respondents were pessimistic or neutral in their response to this question. A moderately optimistic opinion was reported by 47 percent of the sample, and the remaining 32 percent reported a very optimistic outlook on the future of women in management.

A STUDY OF CAREER ASPIRATIONS OF HIGH SCHOOL SENIORS

Weber, Max E.
M. S.

Wichita State University
1974

This research study was undertaken with the objective of developing a better understanding of what vocational aspirations high school seniors have, reasons for making a specific vocational choice, perceived salary designations expected within chosen field, and the influence that an individual's sex plays upon the decision making process.

The approach used in this study was to examine the differences that existed between various sub-groupings of the students. The four major areas of interest examined were: males/females; upper half/lower half (with quartiles); professional/non-professional; and college bound/non college bound. Significant differences were found in each of the major sub-groupings.

In general, the results of this study indicate the majority of those students surveyed intend to pursue some professional vocation. While it was found that both males and females were unrealistic in their vocational goals, females tended to be more realistic than the males. It seems that males tend to perceive themselves doing better in school than they actually are, while females have a much better understanding of their relative academic standing.

While most students have very high salary expectations within their chosen occupation, males have much higher salary expectations than do the females. In general, the salary expectations become more unrealistic as students projected their anticipated salaries into the future, i. e., at the end of five years and ten years.

There was a high level of similarity for both males and females as to their motivation for entering into any occupational area. The most frequent reason for making any occupational choice for both males and females was because it was perceived as being active and exciting. While males also chose occupations because they were perceived to be very profitable, financially, the females regarded the intellectual challenge provided and the utilization of their talents as being important determinants. Conversely, students rarely chose an occupation simply because it was considered easy to enter into the field. Also, the family did not seem to have the influence on the childrens' specific occupational decisions that might have been expected. In addition, it is interesting to note that the school, teachers, or studies play a relatively unimportant part in choosing any particular occupation.

For the most part the occupational goals of students were relatively stable over the high school years with only a small portion of the students indicating any major changes in occupational goals.

The majority of the students indicated an intention to attend a 4-year college or university, with only a small percentage wanting to attend some trade school or an apprenticeship program. An item of considerable interest was the extremely small percentage of students wanting to (1) enter into the military or (2) become a housewife immediately following graduation.

In general, parents appear to have very high expectations for their children, with the majority of parents wanting their children to pursue some professional occupation, regardless of individual ability, preference or skill. The mother appeared to have slightly higher expectations for the children than does the father.

KANSAS STATE COLLEGE OF PITTSBURG
Pittsburg, Kansas

MANPOWER PROJECTIONS FOR THE FOUR COUNTIES
WHICH FORM THE JUNIOR COLLEGE DISTRICT
OF MISSOURI SOUTHERN COLLEGE

Adams, Roger E.
Ed. Specialist

Kansas State College of Pittsburg
1973

The purpose of this study was to project manpower needs of Jasper, Barton, Newton and Lawrence Counties of Missouri.

Some of the specific purposes were to ascertain the future manpower needs of selected occupations; to find the number of persons who have left an occupation due to death, retirement or entering a new unrelated occupation; to determine what vocational-technical programs were offered in the four-county area and where the students who completed the programs were employed. In addition, this study updated the occupational information gained in Harlan Heglar's study completed in 1966.

Two methods of data collection were employed in this study. A questionnaire was mailed to 1,729 employers in the four-county area. There were 902 returns, but only 875 or 50.61 per cent, were useable. The other method of data collection was a computer projection of future manpower needs. The method was developed by the Pennsylvania Department of Public Instruction. It makes use of census data and a matrix to arrive at a yearly need for new workers in each occupation.

Conclusions

1. The occupations which ranked in the upper one-fourth on two or three factors, number of employees, the number of replacements and the number of replacements in excess of the trainees available, should be given priority for implementation at Missouri Southern State College.

2. Many of the respondents felt that programs in semi-professional and technical occupations at Missouri Southern State College would be helpful in filling their future manpower needs.

3. The computer method of projecting future manpower needs did not provide detailed enough data because of the population statistics available.

Recommendations

1. Missouri Southern State College should, at some future date, conduct a survey of agriculturally related occupations to be certain the needs of the area are being met.

2. In addition to the present courses offered at Missouri Southern State College, the related areas which should be considered for future implementation are diesel mechanic and civil and highway technician/surveyor.

3. The College should continue to work with advisory committees to determine the new needs continually arising in business and industry.

RECOMMENDATIONS FOR COOPERATIVELY OPERATING AND FINANCING VOCATIONAL EDUCATION PROGRAMS IN SOUTHEAST KANSAS

Briley, Melvin E.
Ed. Specialist

Kansas State College of Pittsburg
1970

A major problem facing many school personnel at the time of this study was how to best provide vocational-technical education with the expanded concepts and opportunities made possible through the "Vocational Education Amendments of 1968." It was the purpose of this study to make recommendations for cooperatively operating and financing vocational education in unified school districts in Southeast Kansas as reflected by opinions of school superintendents in Southeast Kansas.

The data were obtained from the superintendents of unified school districts in the nine county region of Southeast Kansas through the use of a semi-structured questionnaire. The questionnaire was designed to describe the present opinions of the unified school superintendents regarding the operation of vocational programs in Southeast Kansas.

Over 80 per cent of the superintendents thought the high school had the responsibility of preparing students with marketable skill and

that it would be desirable for schools to cooperatively operate some vocational educational programs.

Approximately 22 per cent of students in grades 9-12 were in some vocational class. Vocational Agriculture and home economics classes accounted for three-fourths of the vocational enrollment.

The superintendents felt the state should be divided into districts for approval and financing of vocational education. A type II board of control with one board member representing each participating school was preferred.

The state should provide over 50 per cent of the cost of constructing and equipping vocational plants. This should be a higher per cent than for other unified school facilities.

Transportation should be provided for at least eleventh and twelfth grade students to attend an area school located away from their parent high school.

The area school and parent high school should work cooperatively in providing occupational information and guidance services to the home high school students, and in developing and coordinating adult evening programs.

Mobile labs in electronics and welding would be used if made available.

Most of the school superintendents indicated their school was not large enough to offer adequate vocational education programs and the majority felt to have sufficient vocational students the programs would need to draw students from a total enrollment in grades 9-12 of over 700.

Problems involving transportation, financing and scheduling were the ones superintendents thought would most likely occur in students attending a center away from their parent high school.

PROPOSAL OF A NEW INDUSTRIAL ARTS PROGRAM
FOR JUNIOR HIGH SCHOOL IN TAIWAN

Chang, Kan-tang
M. S.

Kansas State College of Pittsburg
1970

Statement of the Problem

The first and the most fundamental problem of this study was to develop a new industrial arts program whose objectives would reflect the aims of general education and the National Man Power Development Policies for Taiwan. Since the industrial arts have been recognized as a part of a general education, the problem then was how industrial arts would contribute to the attainment of these aims and policies.

The study involved two basic problems: one was to analyze the nine-year education plan of Taiwan and related national policies, and to diagnose the prevailing industrial arts program; the second problem of the study was to establish the instructional areas, activities, and supervision for industrial arts. The suggested aims were to provide a flexible and wide range of instructional areas, which will be derived from the examination of industries in Taiwan.

The value of supervision was so obvious in the operation of industrial arts programs that the researcher has taken further steps to determine the organization of supervisors in provincial and county levels and to suggest the qualification of supervisors and to make a list of guides for accomplishing the supervisory responsibilities.

Summary And Recommendations

After careful study of the prevailing program and the economic background of Taiwan, the following summary and recommendations have been reached.

1. Many striking and important social and industrial changes which have occurred in Taiwan during the past decade have created new demands for an up-to-date industrial arts program.
2. The industrial arts have been the weakest phase of the curriculum of the junior high school in Taiwan in spite of the fact that national educational and manpower policies have stressed the importance of providing such experiences for youth.

3. The misconception on the part of administrators should be clarified as there will be little progress before the school principal recognizes that industrial arts is a part of general education.
4. There is an urgent need for qualified and experienced personnel to coordinate the program with the principal and industrial arts teachers of junior high school.
5. Two hours a week as per present curriculum are devoted to industrial arts instruction for the entire length of the junior high education. And another two hours a week in the eighth grade are provided for drawing. It is the considered opinion of the writer in the light of his experience and of comparative practices in other countries, that three hours a week through seventh to ninth grades should be provided for industrial arts instruction. Drawing could be offered as a part of instructional areas of industrial arts so that the instructor might be able to link the drawing with shop work.
6. The objectives of industrial arts for junior high school in Taiwan seem to be adequate, however, more emphasis should lay on the following aspects of aims; (1) interest in industry, (2) drawing and planning, (3) vocational guidance, (4) appreciation for work, workmanship, and workmen, (5) shop skills and knowledge, and (6) consumer knowledge.
7. The instructional areas suggested by national standard curriculum are narrow in extent, the expected outcomes could hardly be realized. In the activities of industrial arts, the need for adaptation to local conditions and requirements is an important consideration.
8. Through the study of industry in Taiwan, the instructional areas recommended for industrial arts are drawing and planning, woodworking, metalworking, electricity and radio, graphic arts, transportation and power, plastics, ceramics, home mechanics, and handicraft.
9. In the facilities provided for the teaching of industrial arts, the philosophy of teaching industry should be reflected. These facilities should stress flexibility to allow for the teaching of many areas as well as allowing for integration of many processes and materials needed in most learning situations.
10. The components of content for industrial arts in any area should be derived from the technical, the occupational, the consumer, the recreational, the cultural, and social aspects of its activities to obtain the established goals.

11. The instruction for industrial arts should be from the exploratory, basic, and the scientific, depending on the number of the grade, time and length of courses, and number of areas.
12. The recommended list of equipment indicated its type only, the detail specifications have to be made when purchasing such equipment.
13. Machine and equipment should be selected on the basis of the content of the course of study. Other control factors, such as budget, shop space, and physical condition of the student should also be considered.
14. A textbook furnishes a focal point for discussion. It motivates the appetite of the student for further study and insight into possible applications of the principles which the book sets forth. It also provides the teacher with an outside authority to support or contradict the theories which he is advancing.
15. The reference books should be translated in Chinese, as many as possible if individuals are interested in publications, or the government funds are available for the work.
16. Special supervisors for industrial arts on the provincial and county level are highly recommended to help teach the improvement of the instruction and the physical facilities, and do constant evaluation of the program.
17. It is emphasized in this recommendation that supervision is not intended to exercise rigid control over the process of education, it serves only to guide, to offer assistance and to encourage the teacher for the improvement of the instruction.
18. The proposal of the new program should be put into practice as soon as the national standard curriculum would be revised in 1971. When the new program of industrial arts becomes practice, constant evaluation of the effectiveness should be conducted for further professional growth.
19. Reviewing this study, the further study concerning the industrial arts teachers competence and the appropriateness of the shop facilities are of great value for the program.

AN ANALYSIS OF FACTORS WHICH INFLUENCE
STUDENT SELECTION OF VOCATIONAL-TECHNICAL EDUCATION
IN SOUTHWEST MISSOURI

Coburn, Jerry Paul
Ed. Specialist

Kansas State College of Pittsburg
1973

Information drawn from the U. S. Census reports for the employment needs and patterns of the United States indicates that from 60 per cent to 80 per cent of all the working population is engaged in occupations classified as technical, skilled, or semi-skilled. The industrial technique of this country has now progressed to such a degree of complexity that all levels of occupational endeavor and ability require some type of formal occupational education, with a particular increase in these levels of technical, skilled, and semi-skilled occupation. The amount of formal education needed to prepare an individual for entry-level job competency may vary from a few hours of training to several weeks of intensive instruction, all of which may be conducted either in classroom activities, or a combination of on-the-job and in-classroom activities. (The responsibilities for the classroom activities as part of this occupational education has been primarily accepted by the public schools. This has resulted in the federally reimbursed area vocational-technical schools and the occupational education classe organized in the outlying secondary public schools. However, there is a disparity in the numbers of students that statistics show have occupational needs and in those served by the occupational education programs of the area vocational-technical schools and the secondary public schools).

Simply stated, the problem with which this study was concerned:

1. To identify those influencing sources and factors that tend to affect participation of the high school student in the various occupational education programs.
2. To analyze current influencing procedures and practices of the occupational education programs of the individual area schools, in order to make recommendations that would enable a more effective use of the occupational education program of the area vocational-technical schools and the secondary public schools in serving the occupational education needs of the area's high school age population.

Conclusions

From the results of this study, the following conclusions and implications can be drawn:

1. Career days, consultation with the vocational-technical counselor and announcements at meetings by vocational-technical personnel explaining their purpose were ranked first, second and third respectively in all geographical areas as being the three most common techniques used by area schools in contacting students of their programs.
2. Career days, consultation with the college counselor and individual letters or post cards from the college as being the three most common techniques used by colleges in contacting students of their programs.
3. Consultation with the vocational-technical school counselor, career days, and the sending of brochures, flyers, leaflets and booklets were ranked first, second and third respectively in all geographic areas as being the three most influential techniques in overall influence.
4. College catalog, consultation with the college counselor and brochures, flyers, leaflets and booklets were ranked as being the three most influential techniques in overall influence.
5. The high school guidance counselor, vocational-technical students and the high school teacher in the students major field of study were the main sources that provided career information.
6. The high school guidance counselor, college, and college students majoring in their career major were the main sources that provided career information.
7. The father, or male guardian, mother, or female guardian, and the high school guidance counselor were ranked first, second and third respectively by the high school students in all geographical areas as being the most influential in offering personal advice and influence.
8. The mother, or female guardian, father, or male guardian, and the high school teacher teaching in the area of their career choice were the most influential in offering personal advice and influence for college students.

Recommendations

It is recommended that the findings of this study be utilized by vocational-technical personnel at the high school and post high school level in planning and developing effective programs related to the different classifications of students.

It is specifically recommended that vocational-technical personnel in vocational-technical education critically analyze the findings of this study in relationship to the influential techniques, influential sources, and adopt these influential factors to their present programs to influence students.

It is further recommended that subsequent research be conducted in the following ways:

1. It is recommended that a replication of this study be conducted using a population within other geographical areas or within another state.
2. Additional research is recommended to ascertain the relative effectiveness of influential programs with occupational areas.

THE COMPARATIVE EFFECTS OF SKETCHING VERSUS INSTRUMENT MANIPULATED DRAWING SYSTEMS UPON THE STUDENT'S INITIAL LEARNING AND RETENTION OF MULTI-VIEW PROJECTION DRAWING

Dean, Harvey
Ed. Specialist

Kansas State College of Pittsburg
1971

The study attempted to ascertain the most effective method of teaching basic graphic communications. The two methods tested were the traditional drafting method (defined as drawing with drafting instruments) and sketching (defined as drawing using only a pencil and grid paper). The study was limited to two classes of Graphic Communication #120 offered at Kansas State College, Pittsburg, Kansas.

The experimental unit dealt exclusively with multi-view projection. The investigator served as instructor, tester, and data analyzer for both treatment group A (control group) and treatment group B. The control group and the experimental group were evaluated on initial learning and retention, using instructor prepared evaluation instruments. The evaluation instrument was made up of 3 test parts - theory, visualization, and application.

Analysis of various technique was used as the experimental treatment for data gathered. Total accumulated points were analyzed across groups per each subject, as well as analysis across groups of individual test parts.

Conclusions derived from data gathered were as follows:

1. The two drawing systems are equally effective in terms of initial learning.
2. Experimental treatment B may provide more retention of multi-view drawing than treatment A.
3. Experimental treatment B requires less application time while maintaining equal learning experience in basic multi-view drawing.
4. Treatment B provides more theoretical knowledge in the same length of time as treatment A.

Implications of the findings were that sketching is a practical educational method for basic drawing classes in junior high, high school, and lower level college. It was further implied that sketching requires less of the student's time while providing learning equal to that of students using traditional drawing methods.

A DESCRIPTION OF FLEXIBLE SCHEDULING IN INDUSTRIAL ARTS
EDUCATION IN JUNIOR HIGH AND MIDDLE SCHOOLS
OF THREE SOUTHERN STATES

Dean, Noward E. C.
Ed. Specialist

Kansas State College of Pittsburg
1971

This study was primarily concerned with the description of flexible scheduling in Industrial Arts in junior high and middle schools in the states of Alabama, Florida and Georgia. Particular attention was given to the establishment and operation of Industrial Arts within the flexible programs. The reactions of principals and Industrial Arts teachers to their program were included in the study.

The basic instruments used for collecting data for the study were the questionnaires for principals and Industrial Arts teachers. Questionnaires were sent to ten schools of the states of Florida and Georgia. Questionnaires were only sent to those schools who were identified by their state Department of Education as having a flexible schedule. No questionnaires were sent to schools in Alabama since this state failed to respond to inquiries regarding flexible programs within the state. In all, seven of the ten principals returned their questionnaires. Twenty-one questionnaires for Industrial Arts teachers were sent to principals. Sixteen or 76.2 per cent of the teachers returned their questionnaires.

Drawing from the data of the returned questionnaires, the writer feels justified in making the following comments:

1. It would appear that flexible scheduling in Industrial Arts is not being widely accepted in the states of Alabama, Florida and Georgia.
2. It seems that Industrial Arts Departments of colleges and universities are somewhat negligent in offering programs which would prepare Industrial Arts teachers for teaching in flexible situations.
3. There seems to be a need for a set of criterion which may be used in selecting Industrial Arts teachers who will teach in flexible scheduled programs.

The following recommendations seem to be warranted from the findings of this study:

1. Some plan should be devised which would include a majority of the total enrollment of a junior high or middle school in Industrial Arts programs.

2. Industrial Arts Departments of colleges and universities make some effort to expand or initiate programs which would better prepare teachers for teaching in flexible scheduled situations.

TWO APPROACHES TO THE TEACHING OF MASS PRODUCTION

DeVore, Jack B., Jr.
Ed. Specialist

Kansas State College of Pittsburg
1970

The products of industry are playing an ever-increasing part in our lives. Since 1798 Eli Whitney's mass production approach enabled industry to use workers with a limited amount of skill to produce a great quantity of manufactured items in a short time. The mass production concept is one of the fundamental phases that has enabled American industry to meet the ever-increasing needs of our large and growing population.

Mass production is a significant part of industry. Industrial arts education should find the most expedient means of presenting this concept of production to our youth. Without mass production, the present industrial era that gives us our necessities and luxuries would exist only as a dream.

The purpose of the study was to compare two methods of teaching mass production at the junior high school level. One method consisted of teaching mass production by requiring the students to actually set up and mass-produce a product; the other method taught mass production using a series of lectures on mass production. The study attempted to ascertain the following:

1. Which of the two methods of instruction was most effective when teaching the understanding of mass production?

2. Which of the two methods of instruction created the better attitude toward the class?
3. Which of the two methods of instruction used the teacher and student time most efficiently?

Conclusions

Insofar as the student response to this study were representative of the whole and the measures used were accurate and valid, the following conclusions may be drawn from the study which are not in accordance with the null hypothesis.

Since the per cent gained for Group I on the pre-test to the post-test was 86.04 per cent and the per cent gained for Group II on the pre-test to the post-test was 104.66 per cent, it can be said with confidence that the method, constructing a product when teaching mass production, was the more desirable of the two methods researched.

The attitude findings enforce the opinion expressed by the researcher which "The Purdue Master Attitude Scales," revealed that Group II, on the conclusion of the experiment, had obtained a more favorable attitude towards industrial arts than did Group I. It must then be concluded that the method used in the instruction of Group II was the more desirable method for presenting a unit in mass production.

Recommendations

In view of the findings and conclusions of this study, the following recommendation seems to be in order:

In view of the opinions expressed by the population used in this experiment, it is recommended that when teaching a unit on mass production, the learners should actually fabricate a product.

A VOCATIONAL ORIENTATION PROGRAM
FOR THE LITTLE ROCK PUBLIC SCHOOLS

Dillahunty, Doyle R.
Ed. Specialist

Kansas State College of Pittsburg
1970

This study was made for the purpose of ascertaining some of the significant aspects of organizing a vocational orientation program for the Little Rock Public Schools.

This study was based upon the data received on the returns from ten of fifteen questionnaires mailed to the superintendents of schools in those districts rated AAAA or AAA, and from forty-eight questionnaires returned by the industrial arts, trade and industry, business, and homemaking teachers in the Little Rock Public Schools.

It was determined that all of the responding high schools surveyed offered one or more areas of vocational training, and two of the schools were engaged in an orientation program. But, these programs were not adequately satisfying the needs of the students, in the opinion of the respondents.

It was ascertained that vocational orientation programs should begin as a separate class in the ninth grade, and should be required of all students. It should be taught separately for both boys and girls, with a wide enough range to cover occupations other than those necessary to satisfy the manpower needs of the community.

If it were necessary to incorporate vocational orientation into other classes, it was felt that home economics, civics, or general business would be the most appropriate classes into which to integrate it.

The counselor was to occupy a very important place in the implementation of the vocational orientation program. He should not only lead in the organization of the program, but should also serve as a resource person for this program.

INITIAL CAREER CONSIDERATIONS FOR INDUSTRIAL TECHNOLOGY GRADUATES

Dorsey, William G.
M. S.

Kansas State College of Pittsburg
1970

In order to take full advantage of their advanced education, new industrial technology graduates should attempt to enter the domain of their occupational choice with at least a basic awareness of the opportunities available to them and a general plan to follow in initial employment decisions. Much too often the graduate has only superficial knowledge of the prevailing employment conditions. Employment choices are based on the considerations of job positions in firms held by previous graduates and on several interviews of traditionally considered companies conducted through the placement bureau of the college. While such considerations hold a valid place in the employment process, a course of action so restricted severely limits the employment horizons of the graduate and can perceivably have detrimental effects on the long range job goals of the individual.

This problem, coupled with the fact that most new graduates have the crucial disadvantage in the majority of cases in having little or no experience in the occupational position they are educated to assume, can understandably lead to unsatisfactory results in initial employment decisions. The problem of lack of knowledge concerning specific job operations is a most difficult, perhaps impossible, one to solve without actually experiencing the employment situation. However, the problem of reaching relatively sound choices for the first job in a broader sense does have some possible applicable solutions.

Conclusions

The findings of this study indicate that a number of varied factors influence the success of the initial employment program of the industrial technology graduate. These factors must be considered in employment planning to avoid such undesirable results as accepting initial employment which would not be nearly as suitable as other existing opportunities for employment due to a limited search, or acceptance of initial employment in a segment of industry experiencing a major slowdown such as the aerospace industry at present. The industrial technology graduate should therefore plan a course of action for initial employment that includes considerations of the conclusions derived from this study:

1. The national economy affects the economic state of industry which in turn determines to a large degree the policies of industry, including the expansion or reduction of operating personnel. This factor must therefore be included in initial employment considerations.

2. Federal Administration priorities affect various areas of industry in varying degrees. Such priorities may favor one area of industry creating conditions for considerable expansion or have the opposite effect, causing areas of industry to reduce personnel and operations.

3. Foreign employment with its advantages and disadvantages should be considered by those potentially interested in such employment. Foreign assignments may offer specifically the conditions the individual graduate is in search of in initial employment.

4. The characteristic features of employment in large companies and in smaller firms should be examined and carefully considered. These features are of vital interest to the graduate in initial employment and their importance to the graduate must be recognized.

5. The job function is a factor of special significance and must be carefully considered in initial employment opportunities. Satisfaction in the area of job function should be a primary goal of the graduate in the initial employment program.

6. The importance of salary to the graduate in relation to the other job characteristics should be determined by the graduate and the competitive levels of salary offered by industry with personally acceptable deviations should also be determined.

7. Fringe benefits represent additional remuneration to the graduate. The relative value of the benefits programs of various employers should be a factor for consideration in initial employment.

8. Factors outside the job will affect the graduate and should therefore be of concern to the graduate. Cost of living and style of living in the geographical area in which the job is located are therefore factors to be considered.

9. The placement bureau is the main source of employment opportunities for the industrial technology graduate. The initial employment program of the graduate should therefore be constructed around the services offered by that office.

10. The interview should be considered as the cumulative point of the graduate's efforts toward initial employment and appreciable time and energy should be devoted to preparation for the interview.

11. The placement bureau does have limitations; those mainly of little representation by smaller firms in various geographic locations. A program such as the sending of resumes might therefore be considered.

12. Another avenue of approach to be utilized is that of firms that use computers to match graduates and employers on a nationwide basis.

13. Those considering the possibilities of government employment should arrange for the completion of the Federal Service Entrance Examination which is instrumental in the placement of college graduates in government agencies.

14. Other avenues of approach to employment opportunities such as references by faculty and administrators, private and public employment agencies, newspapers and literature sources in general, friends, relatives, and business contacts should not be disregarded and may well provide the employment sought by the graduate.

15. Correspondence is of considerable significance in the employment process and should be of the highest possible standards to present the best image of the graduate to potential employers.

16. Information retrieval is of primary importance in the employment process and should be thoroughly utilized to provide the graduate with knowledge applicable to employment efforts.

17. These conclusions lead to and reinforce the general conclusion of this study that the graduate must extend the horizons of his initial employment program and that considerable time and effort will be required to achieve success in the initial employment process.

18. The graduate might well expect the assigned job function to be in areas related to manufacturing and production. This conclusion was drawn from the investigations of the Industrial Arts/Industrial Technology California Report and is supported by the results of the Kansas State College surveys of industrial technology graduates of 1968 and 1969 from Kansas State College.

19. The industrial technology graduate can also expect a comparatively high initial salary as illustrated by the data on salary ranges in the placement bureau survey and by the salary ranges indicated in the results of the survey conducted by the Industrial Technology Department of Kansas State College.

Recommendations

This study recommends the following courses of action:

I. Increased emphasis be placed on assistance in preparation of initial employment programs for industrial technology graduates of Kansas State College by the establishment of an informational program instituted by the School of Technology of Kansas State College. Such an informational program might be established with the following services available to the industrial technology graduate:

A. An information library that would include a comprehensive collection of industrial directories, applicable government documents and information relation to resume composition, preparation for interviews, and information regarding salary, job function, and fringe benefits.

B. The publication of a guidebook specifically designed to provide information pertinent to the subject of initial employment considerations for industrial technology graduates.

C. An increased program for dissemination of promotional literature to business and industry regarding the Industrial Technology Department of Kansas State College.

II. The establishment of a program intended to provide current and accurate data concerning business and industrial trends and the personnel needs of business and industry. The program would also include the utilization of annual follow-up surveys of Kansas State College industrial technology graduates to provide information such as employing firms, job functions and salaries for use by upcoming industrial technology graduates in the initial employment process.

CORRELATION BETWEEN ACT SCORES AND HIGH SCHOOL
STATISTICS TO SUCCESS IN DRAFTING TECHNOLOGY
AT CAMERON STATE COLLEGE

Duis, Jerry D.
M. S.

Kansas State College of Pittsburg
1970

The study was conducted to ascertain if existing information on prospective students could be used in order to better determine his probability of success in drafting technology.

The data for the study were obtained for each student completing the first year of drafting technology, from the Registrar's office at Cameron State College. The data consisted of ACT scores for English, mathematics, social studies, natural science, and composite, high school grade point average, size of high school, and grade point average after one year in college. A Multiple Linear Regression Computer Program was used to correlate ACT scores, high school size, and high school grade point average with college grade point average.

The data collected were compiled and evaluated, resulting in the conclusion that a significant correlation does exist at the one per cent level for ACT composite scores followed closely by high school grade point averages.

A STUDY TO DETERMINE THE STATUS OF INDUSTRIAL ARTS
WOODWORKING PROGRAMS OF HIGH SCHOOLS IN THE
SOUTHWEST MISSOURI SCHOOL DISTRICT

Elmore, Gary C.
Ed. Specialist

Kansas State College of Pittsburg
1971

The purpose of the study was to determine some of the more significant aspects, with respect to diversification and similarity, of

the industrial arts woodworking programs in high schools of the Southwest Missouri School District for the school year 1970-1971. The major aspects examined were the general organization and programs of the high schools, the industrial arts woodworking courses and content, the types of shops used, and the opinions of respondents concerning the programs.

Significant finding included the following:

1. There were fifteen different texts used over the district in high school woodworking.
2. Over twenty-two or 31.9 per cent of the instructors had no student in the above average academic caliber in class.
3. Four teachers indicated having 100 per cent of their students in the below average academic caliber in class.
4. Only twenty-two or 31.9 per cent of the instructors required students to wear an apron or some form of protective clothing.
5. Only 18.05 per cent of the teachers had a program in research and experimentation.

The general conclusion drawn from the study was that no basic minimum core of industrial arts woodworking experiences existed in the high schools of the Southwest Missouri School District. These experiences would assure a transfer student of receiving the same basic industrial arts woodworking content from one school to another.

The lack of such a basic core, or the variation in programs, exists in curriculum, course content, physical facilities, duration of instruction, instructional staff utilization, course titles, shop types, grade level of experiences, ratings, and philosophy.

As a result of this conclusion, it was recommended that a consultant for industrial arts woodworking instructors be found for the purpose of developing a workable degree of standardization for the industrial arts programs of the Southwest Missouri School District.

A FIVE YEAR STUDY OF THE GRADUATES OF THE
INDUSTRIAL ARTS PROGRAM OF U.S.D. #367 WITH
RECOMMENDATIONS FOR CURRICULUM CHANGES

Hays, Walter L.
Ed. Specialist

Kansas State College of Pittsburg
1974

In order that a school keep pace with our constantly changing society, it is necessary for that school's faculty and administration to evaluate the programs and courses it offers. If a school is to provide meaningful learning experiences for its students, additional evaluation is necessary to develop and make available data which is current and has a practical value for those students.

Technology as applied to industrial arts is a wide area, one difficult to cover in its varied aspects. Technological advances have created a greater need for educational institutions to change and keep pace with current times. The education a student received yesterday might not be practical in today's or tomorrow's society. As needs change, so also must a school's program and curriculum change.

Altering programs, courses, and teaching procedures simply for the sake of change is not the best procedure to follow in such an instance. If changes are necessary, then it is necessary to gather and evaluate as much information as possible in order to produce the best and most practical learning experiences for students.

Statement of the Problem

The purpose of the study was to obtain, assemble, and analyze pertinent information concerning the industrial arts program at Osawatimie High School Unified School District #367 from 1968-1972 and innovative programs of other schools to determine if the industrial arts curriculum needed to be changed to meet the needs of present students. Following the data collection, recommendations were made as to the direction and type of changes to be considered. To that end, related studies and available new programs were examined as was the background of U.S.D. #367 and its graduates by the results of a graduate survey.

Recommendations

After consideration of data presented here and on the basis of the writer's conclusions, the following recommendations were submitted:

1. All courses in the present industrial arts curriculum in U.S.D. #367 should be analyzed and expanded to offer the students new learning experiences such as those provided by new innovative programs to include career education.
2. Additional courses and any subject matter changes should be made only after consideration of the former graduates' evaluation of learning experiences, their comments, and suggestions.
3. Present tools, machines and facilities should be studied to determine if additional equipment or the different application of the existing tools and equipment could better provide students with a greater learning experience.
4. Summer or evening programs should be offered to give all students the opportunity to take industrial arts courses and to utilize existing facilities more effectively.
5. A follow-up study every five years should be made to determine any changes that are necessary in the curriculum.
6. A practical arts course which would include male and female students should be added to the existing curriculum. The students would have the opportunity to study nine weeks in each of the following courses: foods, drawing, woodworking and plastics, mechanics and metalworking. These courses could be structured to incorporate S. E. T. material.
7. New courses such as power mechanics, electricity and shop math should be added.
8. Guidance counselling services should be expanded to include emphasis on career education.
9. Introductory industrial arts courses on the high school level should include a survey of occupational skills required by industries in the Osawatomie area.

A COOPERATIVE PLAN TO PROVIDE PROFESSIONAL LABORATORY
EXPERIENCE FOR THE PREPARATION OF SECONDARY SCHOOL
TEACHERS

Hughes, James Thomas
Ed. Specialist

Kansas State College of Pittsburg
1970

The purpose of this study was to survey and report the teacher preparation program of the University of Nebraska, located in Lincoln, Nebraska, in their cooperative venture with Lincoln East Educational Complex, a secondary school, also located in Lincoln. Emphasis was placed upon such factors as the legal aspects involved in the formation of their cooperative partnership, use of the public school facilities in cooperation with the University, the roles of the various personnel involved, the progressive involvement in the education system of prospective teachers through their preparation program, and the feasibility of such a program as this as an alternative method of providing professional laboratory experiences for prospective teachers.

The means of collecting data for this study were as follows:

1. Personal interviews by the researcher with administrators in the Teachers College at the University of Nebraska and Lincoln East Educational Complex,
2. A questionnaire for responses from student teachers for the three semesters during which the program had been in effect,
3. An opinionnaire for responses from the teachers at Lincoln East Educational Complex, all of whom are involved in the program.

Following are some of the findings from this study:

Both the student teachers and the teaching staff at Lincoln East Educational Complex believe their program is an effective method of providing professional laboratory experiences to prospective teachers.

The administration of both organizations are pleased with the results of the program. They believe there probably should be more than one attendance center in the district, if this type of program is to be seriously considered. The Lincoln Public School system has two other secondary schools, and parents may choose to send their

students to one of the other schools if they wish to do so. However, the community acceptance of this joint venture has been one of the features of its success.

Staff members of the University of Nebraska and Lincoln East Educational Complex are strongly committed to the idea that professional laboratory experiences are necessary to a good teacher preparation program. Both groups believe this commitment is vital.

The staff members of Lincoln East Educational Complex believe that provision for additional conference time with student teachers would improve the program.

AN INVESTIGATION OF THE DUTIES AND COMPETENCIES OF KANSAS COOPERATIVE INDUSTRIAL COORDINATORS

Kirby, Keith
Master Report

Kansas State College of Pittsburg
1973

The purpose of this study was to collect and re-evaluate data concerning the competencies and duties of Cooperative Industrial Training coordinators in the State of Kansas. The data for the investigation were obtained by sending an information questionnaire to all thirty-four coordinators in the state. Thirty-two coordinators returned the form for a ninety-four per cent response rate.

The majority of the instructors of Cooperative Industrial Training were men and were full-time coordinators. However, forty-nine per cent did have other teaching duties and one-third of the total group taught in the industrial arts area.

The average coordinator spent approximately three to four weeks each summer placing his students in work stations for the coming school year.

There was an average of thirty-one to thirty-two students in each of the thirty-two cooperative classes under investigation. The CIT program serves 1,012 Kansas students with boys outnumbering the girls by only ninety-two students.

The profile of the Kansas coordinator includes work experience, teaching experience, and professional preparation. Over eighty-six per cent hold masters degrees and all of them hold B. S. or B. A. degrees and several are working toward the Ed. S. degree. The majority report over six years work experience with one-third reporting experience in the construction industry and the remainder from sales, service and manufacturing industries. Forty per cent of the respondents had less than five years teaching experience and eighty-six per cent had less than five years as a coordinator of Cooperative Industrial Training.

Personal contact from adults, i. e. teachers, counselors, employers, parents, plays an important role in the selection of students for the program. The most popular forms of selection are through teacher-pupil interview, counselor-pupil interviews, past school records and grade classification of the student.

All respondents had personal visits with employers as a means of securing work stations while eight per cent of the coordinators required continuous employment at the same work station for the entire year.

Many different methods were used to present instructional material to the learners with the outside speaker, field trips, group discussions and student demonstrations deemed the most effective.

By means of personal visits and telephone calls, the coordinators were able to check the learners work experience. Written evaluation from the employer was received by 57.9 per cent of the coordinators every nine weeks. Most coordinators made at least one visit per month to the place of employment and they usually lasted less than thirty minutes.

Most of the programs made use of the written agreement between the student, employer, and school, and practically all coordinators consulted the employer in determining the students report and grade.

Less than two-fifths of the students are involved in club activities; however, fifty per cent of the coordinators report 100 per cent membership of their enrollment.

There is a desire by most coordinators to get together at least twice a year to exchange ideas and materials. It was stressed many times that these meetings should be well organized in order to be meaningful.

Conclusions

Insofar as the data reported in this investigation are valid, and the facts obtained and opinions expressed are accurate, the following conclusions may be drawn:

1. Individuals who may be preparing to become coordinators need a broad educational background in industrial work experience, teaching experience and professional preparation.
2. There will continue to be a demand for new coordinators created by the tendency to establish new programs and to replace former coordinators leaving the state or moving into administrative positions.
3. Most Cooperative Industrial Training coordinators obtained their occupational work experience in the area of skilled trades.
4. Most coordinators have educational responsibilities in areas other than their cooperative vocational programs.
5. The use of group discussions, field trips, student demonstrations and outside speakers are a more effective method of instruction than lecture, films, reference materials and reports.
6. Coordinators can enhance their instruction by using the expertise of other teachers when possible and timely.
7. The training plan is used to implement and evaluate individual student learning objectives.
8. Successful recruitment and selection of students depends upon the team effort of the school faculty, counselors, and students.
9. Cooperative Industrial Training can accomodate both boys and girls in meaningful education.
10. Personal visits with employers for placement and evaluation places the responsibility of good public relations upon the coordinator.
11. Occupational surveys are becoming more important in successful placement of students.
12. It is of increasing importance for coordinators to dwell on the affective realm of education. Honesty, reliability, responsibility, attitude toward work, and cooperation with fellow man are areas of instruction the coordinator must include.

13. Student progress in learning is the most important function of the coordinator.
14. Employer evaluation is receiving more emphasis in final student evaluation and program accountability.
15. Clubs are successful according to the amount of time and energy expended in their behalf. Competition does enhance club interest and participation.
16. State certification requirements of two years work experience and at least two years of successful teaching experience is endorsed by the majority of coordinators.
17. Fifty per cent of all Kansas coordinators favor extending the CIT program to a two-year program.
18. There is a need and desire for coordinators to get together to share ideas and materials.

THE ROLE OF THE CHIEF VOCATIONAL-TECHNICAL EDUCATION
ADMINISTRATOR OF THE COMMUNITY JUNIOR COLLEGES
OF KANSAS AND MISSOURI

Johnson, Charles W.
Ed. Specialist

Kansas State College of Pittsburg
1971

Purpose

To identify the administrative levels, job titles, duties and responsibilities, conditions of employment of the chief vocational-technical education administrators of junior colleges of Kansas and Missouri. Another purpose was to ascertain whether or not a statistical relationship exists between administrative levels and: administrative duties and responsibilities, conditions of employment, job titles, and desirable job titles of the chief vocational-technical education administrators.

Method Of Research

Information forms were sent to all of the junior colleges of Kansas and Missouri to be completed by their chief vocational-technical education administrators. The responses from the information forms provided the data used in this study. The chi square test was used for the statistical analysis to determine the degree of relationship. The 0.05 significant factor was used as the determining factor.

Findings

1. Seven per cent of the administrators were first level administrators; 53 per cent were second level; 33 per cent were third level; and seven per cent were fourth level administrators.
2. Eighty per cent of the administrators were devoting 80 to 100 per cent of their time to administrative duties. The majority of the administrators were employed on 12 month contracts. Levels and lengths of contracts were statistically related: the higher level administrators were employed on longer contracts.
3. The salaries reported ranged from \$10,500 to 21,200 annually, with a mean of 14,920. No statistical relationship was found between salary and administrative level.
4. Most administrators were very satisfied with their job. No statistical relationship was found between satisfaction and level.
5. The administrators were working under eight different titles, predominantly containing the word dean or director. No statistical relationship was found between administrative levels and desired job titles.

Conclusions

1. A master's degree appear to comprise the educational preparation necessary for those persons employed as chief vocational-technical education administrators.
2. There appears to be four basic administrative structural patterns. The chief vocational-technical education administrator typically occupies the second or third level.
3. Twelve month contracts at annual salaries in excess of \$14,000 are typical.

4. A majority of the administrators devote full time to administration. Those on lower levels appear to devote less time to administrative level.

IN-SERVICE TRAINING FOR COORDINATING OCCUPATIONAL COMMUNICATIONS

Jones, Dolores
Ed. Specialist

Kansas State College of Pittsburg
1974

The purpose of this study was to ascertain whether occupational instructors working with basic skills instructors in an in-service training program could integrate basic and technical skills into a teaching syllabus of the occupational instructor and to further ascertain whether these instructors could return to their respective classrooms and utilize this cooperative syllabus.

Data were gathered during the course of a two weeks' in-service workshop held at Independence Community Junior College, Independence, Kansas, during the summer of 1972 and during a one-day workshop at Emporia Kansas, in the fall of 1972. The workshop was limited to ten technical skills instructors and ten basic skills instructors. Three academic instructors were added to the experiment to determine whether academic instructors as well as occupational instructors could also design a teaching syllabus and cooperate with a basic skills instructor in the utilization of this syllabus. All these instructors had the cooperation of a vocational communications consultant throughout the teaching year.

It was discovered that a change in attitudes must take place in an occupational instructor before he can design a teaching syllabus that contains both technical skills and basic skills. He must also become aware of all the factors that influence his teaching situation.

It was also discovered that a change in attitude must take place in the basic skills instructor and that he must change both his method and the content of his teaching syllabus.

It was further discovered that once the attitudes of instructors were changed that the basic skills instructor and the occupational instructor could work together and design a teaching syllabus that contained all the skills necessary for an occupational student to be successful on the job. However, each instructor must be individually tutored if all these changes were to take place.

It was further discovered that these same changes could also take place with the academic instructor.

PREDICTING SUCCESS OF TECHNICAL STUDENTS AT BUTLER COUNTY COMMUNITY JUNIOR COLLEGE

Lacey, Richard J.
M. S.

Kansas State College of Pittsburg
1970

The purpose of this study was to evaluate existing data regarding it's use as valid predictor variables for students entering the technical department of Butler County Community Junior College. Specifically, the study sought to:

1. Determine whether there is any significant relationship between the high school mathematics and English grades and the college grade point average.
2. To determine by use of a regression equation a specific high school mathematics and English grades to be used in advising and counseling potential students.

Investigation of the above problems were accomplished by first solving for the Pearson product moment coefficient of correlation, designated r . After computing the coefficients of correlation, Fisher's t -test was used to determine whether the null hypothesis would be rejected or not rejected.

Findings

1. A significant correlation was found to exist between high school mathematics and English grades and grade point average attained by the

technical students who were the subjects of this study.

2. The standard error of estimate, ± 1.05 , reveals that although the correlation is significant, it has limited value as a predicting device.

Conclusions

Although the numbers of subjects used in this study was relatively small, the results were plausible and of sufficient significance to warrant further study at such time when a larger number of students are available to offer a greater amount of data.

Recommendations

The significant results of this study would indicate that:

1. High school mathematics and English grades should be used to provide more efficient advising and counseling of students pursuing the technical curriculum.
2. In order to provide greater ease and accuracy of computation and to insure continued testing, a Fortran computer program should be used to correlate the various predictor variables to college GPA.
3. Further studies of this type should be made in regard to the correlation of GPA to overall high school grades, rank in class, and ACT scores in an effort to find the best possible predictor of academic success, and thus provide a basis for more realistic advising and counseling.

AN ACADEMIC EVALUATION OF TRANSFER AND NATIVE
STUDENTS IN THE DEPARTMENT OF ENGINEERING
TECHNOLOGY, OLD DOMINION UNIVERSITY

Miller, William A.
Ed. Specialist

Kansas State College of Pittsburg
1973

This study was concerned with the academic performance of transfer students as compared to native students in the Department of Engineering Technology, Old Dominion University. The study included 53 students during the 1971-72 and 1972-73 school years.

Quality point averages were used as the basis of evaluation. Individual student transcripts were analyzed as to courses, semester hours, and grades. Quality point averages were then grouped into lower-division, upper-division, and combined lower and upper-division in the following categories: over-all, mathematics, science, technical-science, technical, and social-humanistic. The statistical t distribution test for significance was used to analyze the data.

Results of the study indicated that: (a) transfer students suffered a severe drop in their quality point average first semester after transfer. (b) transfer students academic performance in mathematics and science will equal and may slightly exceed that of the native students. (c) native students academic performance will exceed that of the transfer students in the technical-science and technical categories. (d) both groups academic performance in the social-humanistic category will be lower than in any other category. (e) transfer students attrition rate will be no greater than the native students.

AN INEXPENSIVE APPROACH TO SUCCESSFUL
REFRIGERATION SHOP COURSES

Murry, Clair A.
M. S.

Kansas State College of Pittsburg
1971

This study was an attempt to determine the content of a shop course in domestic refrigeration repair and the most effective and economical manner to present the laboratory experiences.

The purpose of the study was to develop a list of common malfunctions found in home refrigerators and freezers and from that list form a set of jobs to be performed by the student in order that he could develop a job entry skill. The study also was intended to develop a replacement for the job sheet that would give greater emphasis to independent student planning.

The data for the study were obtained by an analysis of the records of 864 repair jobs performed on home refrigerators and freezers. Analysis of the data indicated that the majority of malfunctions occurring in domestic refrigerators and freezers involved one of eight customer complaints. The analysis also revealed that sixteen items accounted for 96.36 per cent of the parts used in repairing the jobs surveyed. An interpretation of the aforementioned findings indicates that instruction and instructional aids should concentrate on the eight areas of customer complaint and those jobs involving the sixteen parts most often replaced.

A NUMERICAL CONTROL DEVICE
FOR INSTRUCTIONAL USE

Penn, C. Allen
M. S.

Kansas State College of Pittsburg
1973

In summary, the purposes of this study should again be brought to the fore:

1. Can a device be built that will teach the principles of numerical control and yet have a price that can be afforded by the majority of high schools across the United States?

Yes, such a device can be built and has been, as represented by the NC-10.

2. If the answer to Question 1 is affirmative,

- a. What general form will the device have?
- b. What are its advantages?
- c. What are its disadvantages?
- d. What is its anticipated selling price?

The photographs in this study shows what is believed to be the most practical answer to the need of a low-cost numerical control device for teaching numerical control principles. Among its advantages are cost, adaptability to drafting, electronic programs and portability. Because of its portability, it is possible that the unit might be damaged by dropping or storing it in a location that might affect it by contamination by moisture or corrosive chemicals. Some instructors who relate numerical control with metal working operation may be hesitant to purchase a numerically-controlled drafting machine; however, the anticipated sales price of less than \$1,000 should do a lot toward changing their minds and create enthusiastic supporters of the NC-10 Numerically-Controlled Drafting Machine.

A DATA ANALYSIS OF 1960-1969 VOCATIONAL DRAFTING
GRADUATES OF KANSAS STATE COLLEGE, VOCATIONAL
TECHNICAL INSTITUTE

Porter, Joe D.
M. S.

Kansas State College of Pittsburg
1970

The study was conducted to ascertain if existing data on prospective students could be used to better determine his probability of success in technical drafting.

The data for the study was obtained, for each graduate of the two year drafting program from office records and a nine year follow-up study at the Vocational Technical Institute, Kansas State College, Pittsburg, Kansas. The data consisted of aptitude and intelligence test scores, student rank in high school graduation class, number of units of mathematics and science taken in high school, overall grade point average, and related and major subject grade point averages while attending the Vocational Institute. Also used were employment information such as salary, type of drafting being done, training after graduation, number of jobs held since graduation, and geographic location of employment. A Multiple Regression Analysis Program was used to correlate the data collected with the graduate's overall grade point average.

The data collected were compiled and evaluated, resulting in the conclusion that aptitude and intelligence scores, student rank in his high school class at graduation, units of mathematics and science taken in high school, are reliable predictors of probable success in the drafting program at the Kansas State College Vocational Technical Institute.

AN ANALYSIS OF TRENDS IN THE REQUIREMENTS FOR
CERTIFICATION OF VOCATIONAL INDUSTRIAL
EDUCATORS AND ADMINISTRATORS

Rankin, John W.
Ed. Specialist

Kansas State College of Pittsburg
1971

The purpose of the study was to compare the requirements for certification of vocational industrial educators and administrators for the years 1946 and 1971, and to analyze the trends in the formulation of those requirements.

The major areas of qualifications considered in the comparison were (1) occupational experience; (2) teaching experience; (3) general education; (4) professional education; and (5) competency in the occupation to be taught.

The findings of the study were:

1. The number of years of occupational experience required increased for all classifications of vocational industrial education personnel.
2. Requirements for teacher trainers increased in the area of occupational experience, teaching experience and general education.
3. The requirements for vocational industrial instructors showed the greatest change in the area of general education.
4. The requirements for certification increased in all areas of qualification in the majority of the states and territories.
5. Geographical area had no apparent influence on the requirements for certification.
6. The general trend appeared to be toward an increase in general education requirements, with most states requiring the Master Degree for administrative personnel and an increase in the number of states requiring the Bachelor Degree for vocational industrial instructors.

A STUDY OF THE EMPLOYMENT POTENTIAL FOR WOMEN
IN THE PRODUCTION AREA OF THE PRINTING INDUSTRY

Ryson, Paul D.
M. S.

Kansas State College of Pittsburg
1971

The study was conducted to help identify a need for a proposed women-oriented printing program option to be developed at Kansas State College of Pittsburg. This need was to be identified by determining the projected employment opportunities for women as production workers in the printing industry.

An objective questionnaire, designed to establish the validity of four supporting hypotheses, was utilized by the investigator to validate one major proposition. This proposition implied that printing employers would tend to hire increasing numbers of women as production employees in the next five years.

The population sampled was defined as all industrial printers, printing employers, printing educators, and printing students residing in Kansas and the immediate three-state area surrounding Kansas State College of Pittsburg.

The most significant aspect of the study was that it indicated that many existing printing or graphic arts educational programs might have to be re-evaluated with regard to the results of the study.

The conclusions of the study indicated that the employment potential for women would be favorable for the next five years. An analysis of the hypotheses' validation indicated that women printers would work for less wages than men printers, that women were less eager to train or retrain for printing production employment, that women could operate most modern printing equipment as well as men, and that there would be an increase in the amount and type of printing production work women would be able to perform.

THE STATUS OF MACHINE TOOLS IN THE KANSAS COMMUNITY COLLEGES AND VOCATIONAL TECHNICAL SCHOOLS

Samora, Ruben Francis
M. S.

Kansas State College of Pittsburg
1970

The purpose of this study was to ascertain how recent and effective machine tools were in the Kansas community junior colleges, the area vocational technical schools and the secondary high schools with vocational machine shop instructional programs. A survey was conducted by questionnaire with thirty-two being sent throughout the state. Twenty-eight instructors responded to the questionnaire.

The major conclusions and recommendations as a result of the study were that the best equipped machine laboratories were those directly or indirectly involved with an area school.

Many vocational machine shop programs were operating with old, surplus machinery.

The secondary high schools with vocational machine shop programs need to obtain equipment that is more up to date. This is necessary in order for the program to be relevant.

Where there is a need for such skills, the community junior colleges should operate vocational machine shop programs and receive the same consideration as the area schools do.

FACTORS THAT INFLUENCE THE JOB ENVIRONMENT, WITH IMPLICATIONS FOR INDUSTRIAL ARTS

Selzer, Gerald L.
M. S.

Kansas State College of Pittsburg
1974

The purpose of the study was to determine the factors that influence the job environment and to suggest how industrial arts

might be taught at the junior high school level so that students could experience a variety of job environments.

A review and interpretation was made of literature related to job analysis and classification, job satisfaction, and worker productivity. It was concluded that the job environment consists of physical and social aspects and is influenced by three sets of variable factors: the tasks that must be performed, the organization of which the job is a part, and the relationship of the job to the total organization. A diagram was developed to illustrate the relationship between the variables.

It was concluded that students could experience many job environments through commonly used industrial arts activities. Emphasis, however, should be shifted from the technical to the human aspects of the activity.

ESTABLISHING AND IMPLEMENTATION OF AN INDUSTRIAL PLASTICS PROGRAM ON THE VOCATIONAL LEVEL

Sharp, James W.
M. S.

Kansas State College of Pittsburg
1970

The Plastics Age is upon us. Little more than 100 years old, the plastics of today are playing an ever-increasing role in our modern industrial society. Plastics have begun to appear and have become embedded in almost every type of manufacturing, primarily because of the great adaptability to so many products and processes. Because of the rapid growth, it has become increasingly important that knowledgeable people be trained in the field of plastics.

Statement of the Problem

With the rapid growth of the plastics industry, one overwhelming problem has come to focus. The problem was the vast shortage of trained and knowledgeable people of plastics materials and processes.

Because of the magnitude of the problem, industry has turned to

educators for help. And the natural place, believed by the writer, for this task to be undertaken, was the industrial education departments of our schools and colleges. This study was devoted to handling this problem on the vocational high school level.

The problems, as they exist for plastics education, were stated at what the writer felt was their level of importance.

One outstanding problem, as it exists today, is the lack of qualified plastics instructors. Currently, the knowledgeable people of plastics are working in industry. Those qualified to teach a plastics program, who have the wide-range of knowledge, are usually on the engineering level and, therefore, are not easily enticed to leave their work because of the wage differential. (A vocational instructor, at present, is not required to have a degree but, as of the writing of this paper, there has been no great influx of industrial people into the plastics teaching field.)

There is a great deal of specialization in industry which has created an insufficient number of people with the knowledge and talent required to teach plastics programs. Until specialization in plastics curriculum occurs in our schools, it will be the responsibility of our colleges and universities to train the teachers to possess this wide-range of plastics know-how.

There seems to be little awareness on the part of many administrators of the need for plastics study in their school systems. This is evidenced by the fact that now there is only one vocational plastics program in the entire four-state area of Arkansas-Kansas-Oklahoma-Missouri.

At the time in the future when there will be trained, qualified instructors, there will still exist the problem of facilities. In the past, plastics curriculum has been incorporated into other fields of learning -- such as metal and wood work -- in an effort to get the program started. This is usually done for several reasons, two of which are the cost of additional equipment and the lack of available space.

It was the hope of the writer that plastics programs could be initiated with the idea of "separate identity". However, the writer does not mean to insinuate that plastics does not fit into other fields of learning, but that it should not be overshadowed by older, more established programs.

Finally, the problem of correlation between what was taught in plastics programs in operation now and what was fabricated by industry came into view.

Most junior and senior high school industrial arts programs are teaching what the writer will identify as "hobby skills." "Hobby skills" means cutting, carving and finishing with materials such as acrylic (Plexiglass). Generally speaking, the fabrication of "hobby type" projects is not consistent with industry and should not be emphasized in vocational education. Therefore, questions were raised as to the value of this type program in our industrial arts curriculum.

It was hoped that this paper would produce some guidelines for the instructor who has been appointed to establish a plastics program.

Conclusions

It has been the overall attempt of this paper to show the following three basic factors:

- (1) There is a need for plastics education;
- (2) Some guidelines that will be of benefit to any educator or school system engaging in a plastics program are needed;
- (3) A course of study.

1. There is a need for plastics education:

Through the great upsurge in the use of plastics materials and processes in the last decade, without a doubt, it should become apparent to the reader that there is a need for plastics education.

If the growth of the plastics industry continues, as it apparently will (based on all knowledgeable predictions), there will be a need for trained people to fill the jobs that now and will exist in the industry. And, industry will be looking for educated people to fill these jobs.

The need for plastics education, however, is not too clearly seen by some in the educational field. They still think of plastics materials as being substitute materials, easily broken, cheap, and undesirable if any other material is available. This attitude, of course, is based on those "unfortunated" uses of plastics that developed during World War II when the industry was just a babe. But, unfortunately these attitudes are not easily distilled from the minds of some without further education on their part.

One of the major problems then, is the education of the educators.

They must become aware of the need for plastics education and then programs in this area can begin to develop.

2. Some guidelines that would be of benefit to any educator or school system that presently or in the future plans to initiate such a program with primary emphasis on vocational education:

Without repeating these guidelines as stated in Chapter II, it is hoped that they will establish a standard or guide toward setting up plastics programs, which will reach a level of training excellence, acceptable to the industry, but not out of reach or impossible for educational establishments.

3. A course of study.

The course of study can possibly be improved and expanded but it is intended to give the reader an idea of the many facets of this industry which should be introduced and taught to the student. With the emphasis not directed toward a great amount of specialization, the course of study should be a generalized overall picture of the industry.

One of the yardsticks of man's progress has always been the change in materials which he uses. New civilizations were created as man moved from the Stone Age to the Bronze and Iron Ages. Although the plastics industry is relatively new, we could say that we are now beginning the era of the Plastics Age. The design of man's products are greatly affected by the materials he uses, and design with plastics should bring about many more interesting changes that will affect the everyday lives of man.

ORIGIN AND DEVELOPMENT OF MANPOWER
DEVELOPMENT TRAINING IN KANSAS

Simpson, Jasper R.
M. S.

Kansas State College of Pittsburg
1970

The intention of the study was to establish the origin and development of Manpower Development and Training programs in Kansas from the inception through 1969.

1. Research Summary. Compilation of the data, revealed a total of 85 regular projects, including 142 sections of training, and 19 multi-occupational projects, encompassing 141 sub-projects in the State of Kansas from 1963 through 1969. A total of 283 is the sum of regular project sections and the multi-sub-projects. Since the multi-projects are classified continuous and open-ended, the data fails to show that most sub-projects had an equivalency of two sections each. This estimation would indicate that Kansas Public Institutions had conducted approximately 424 sections of MDTA training during the period of study.

MDTA training first started as an Auto Mechanic project in Topeka on January 7, 1963. The assignment of KA(R) 1 was the project number, with twenty trainees authorized for thirty-six weeks of training. Wichita received the number two project approval as KA(R) 2, and received an authorization of thirty-two trainees in Licensed Practical Nurse for a fifty-two week period. However, Kansas City in the third project assignment, KA(R) 3, was able to start training one month ahead of Wichita, in Auto Mechanics with twenty trainees for thirty-six weeks.

According to the findings in Kansas City, the average trainee completion cost was \$975.55 over the 7-year study. The highest cost of \$1,282.47 per trainee in 1964, is contributed to the outlay of equipment purchase. In addition, the per-trainee cost of \$671.56 was the lowest cost of the period in 1967, a multi-occupation project function.

Another area of research establishes that an average of 72.9 per cent of trainees who completed training in Kansas City are working. However, 19 per cent of the follow-up were unemployed. Approximately 8 per cent could not be located.

2. Conclusion Drawn by the Writer. Although Manpower Development Training had a slow beginning in 1963, it has accelerated in program

development in later years. However, it is restrained by the limit of federal allocation of funds to the State.

A number of specific changes have emerged in the type of project funding and operations. Multi-occupational projects basically replaced regular projects, since multis are capable of providing supportive trainee services, skill exploration, vocational assessment, and building the units of training around the individual to supply his needs for employment preparation.

The addition of the skill center concept is the most recent change. Kansas City and Wichita were among the fifty-five centers to be designated skill centers. Probably the most important point in the concept is the authority to negotiate with other agency programs under the Manpower Act.

Allocation of funds from Federal-State are mostly shared by three major cities: Kansas City, Topeka, and Wichita.

To improve the quality of training and a higher rate of trainee placement on the job, a number of recommendations are made:

1. The addition of clustering all occupations that have more than one job description. This means that a particular occupation might have several job descriptions from a low capacity to a high capacity level of worker needs. By this arrangement, a trainee can develop up to his capacity and then seek a job in the specific cluster of training.

2. A job developer is severely needed to develop jobs to match the trainee's skills, and to have the job available upon the completion of the trainee's training. Job placement percentages would greatly increase and make the programs more successful.

3. An increase in the yearly allocation of funds are needed to train more people from the communities. Most of the three major centers could train from 20 to 30 per cent more people if additional funds were available.

SOURCES OF TEACHING AIDS AND RELATED MATERIALS FOR
TEACHERS OF VOCATIONAL BUILDING TRADES

Spires, John W.
M. S.

Kansas State College of Pittsburg
1971

Vocational building trades instructors must keep abreast of the latest developments in the various trade areas. In order to keep informed of the current progress in industry, teachers need a composite listing of teaching aids and related materials.

This study provides a listing of free and inexpensive teaching aids. Bulletins, pamphlets, films, and filmstrips are included. The source of the material, title, and, whenever available, a brief description is given for each aid.

The study contains information on the characteristic, presentation, and the use of teaching aids.

The library and audio-visual centers of the Kansas State College at Pittsburg and the University of Missouri at Columbia were used to obtain data. Also, books, catalogs, government publications and periodicals were used to supply information. From these references, 594 different sources were selected. Letters were mailed to each source requesting teaching aids and related materials.

This study contains 144 sources of bulletins and pamphlets, 40 sources of movies, and nine sources of filmstrips and slides.

This study was limited to the trade areas of carpentry, concrete and masonry, painting and decorating, and plumbing.

LLOYD C. STEARMAN'S
CONTRIBUTION TO THE ORIGIN, TECHNICAL EVOLUTION, AND
ADMINISTRATIVE DEVELOPMENT OF THE AIRCRAFT INDUSTRY IN
WICHITA, KANSAS

Valliere, Wesley E.
Ed. Specialist

Kansas State College of Pittsburg
1970

This is a study of Lloyd Carlton Stearman and the contributions that he and his associates made to modern airplanes. He brought many new production techniques and improvements to the aircraft industry. This study will show how his ability and foresight enabled him to advance to the top echelon in several aircraft companies.

Because of the talents of Lloyd C. Stearman, the aircraft industry literally flew from its tiny embryonic stage into traumatic convulsions that gave birth to a winged giant--new designs, engines, regulations, uses, skills, jobs, industries, and even cities. The airplane has shrunk the world to a forty-five hour capsule and aerospace rocketry is now digesting the universe itself.

Lloyd C. Stearman is still living and has become a legend in his own lifetime--factories have been named after him, planes and streets named after him, and recently in Wichita, Kansas, a new elementary school dedicated, bearing his name.

A STUDY SUBSTANTIATING THE NEED FOR,
AND DELINEATING THE ORGANIZATION OF,
THE KANSAS DRAFTING ASSOCIATION

Weaver, Gerald L.
M. S.

Kansas State College of Pittsburg
1971

The purpose of this study was to substantiate the need for the Kansas Drafting Association, and to delineate a functional organization

for the Association.

The conclusions drawn from the study can be summarized as follows:

1. The Association was formed by Drafting instructors who sensed a need to cooperate in order to solve mutual problems.
2. Discussions as early as 1967 centered on the need for such an organization, and were culminated at the 1970 Trade and Industrial Education Workshop at Kansas State College of Pittsburg when the organization was formed.
3. Problems facing drafting educators encompassed the need for graduate placement, information sharing, industry education cooperation, program public relations, and improvement of Drafting Education programs.
4. The Kansas Drafting Association can provide a means for solving drafting education's problems.
5. The proposed Constitution and By-Laws, created for the Kansas Drafting Association as part of the study, have been deemed appropriate by a majority of the Association's members.

EMPORIA KANSAS STATE COLLEGE
Emporia, Kansas

A COMPARISON OF THE PREPARATION OF THE KANSAS
COMMUNITY JUNIOR COLLEGE INSTRUCTORS BEFORE
AND AFTER THE KANSAS COMMUNITY JUNIOR
COLLEGE ACT OF 1965 WAS PASSED

DeWater, Beverly K.
Ed. Specialist

Emporia Kansas State College
1972

The purpose of the study was to determine changes in selected factors related to preparation of instructors in the Kansas Community Junior College from 1964 to 1971. The changes were derived from comparisons from the two years on the following: the total graduate hours earned, the total number of teachers, the total years experience in each academic level, the total number and percentage of graduate hours that each academic department had, and the total number and percentage of degrees in each academic department.

The fifteen community junior colleges that were operating in 1964 were used for the study. The same fifteen community junior colleges were used in 1971. The years of 1964 and 1971 were used as a reference point prior to and after the passage of the Community Junior College Act of 1965.

The data used for the study were compiled from the Community Junior College and Two-Year College Report at the State Department of Education, Community Junior College Division, Topeka, Kansas.

The data were listed by each academic department and community college. The graduate hours and percentages of the total graduate hours for all the community colleges were listed for English, math, humanities, social science, home economics, physical education, vocational education, science, and business. The degree, percentage, and years experience were listed by department. The total number of teachers were listed by community colleges.

Conclusions

There was an increase in the total graduate credit hours earned by instructors in the Kansas community junior colleges. The English Department instructors have the largest number of graduate hours in comparison to instructors in all other departments. The total number of instructors in all academic areas increased from 1964 to 1971. The percentage of community junior college instructors with master's degrees seems to remain stable over a period of years. The number of community junior college instructors with specialist degrees, doctorate degrees and no degrees also remains stable.

Recommendations

Several recommendations can be made from the outcome of this study. Further study needs to be made to ascertain why Kansas community junior colleges employ very few instructors with earned doctorates. Only 3.2 per cent of all instructors in Kansas community junior colleges had doctorates in 1971. With the surplus in number of doctorates in recent years, it is confusing why more junior colleges have not hired these individuals. Perhaps the research stigma, rather than possession in teaching skills, contributed to the reluctance of administrators to hire doctorate holders for teaching positions.

Further study might be made concerning the comparison of the number of students with the number of teachers.

The number of graduate hours earned by instructors with regard to the community junior college philosophy or related subject would add information and is needed research.

It would seem logical to have a similar study relating to administrators in the community junior college.

DEVELOPMENT OF GUIDELINES FOR ESTABLISHMENT OF STUDENT-
OPERATED BUSINESSES IN DISTRIBUTIVE EDUCATION
AT THE VOCATIONAL-TECHNICAL
SCHOOL LEVEL

Goble, Roy L.
M. S.

Emporia Kansas State College
1972

The purpose of this study was to develop guidelines for the establishment of student-operated businesses in distributive education at the vocational-technical school level. Specifically this study attempted to show: (1) a review of literature indicating the place in the distributive education curriculum for such a plan; (2) the information needed for preliminary planning; (3) the purpose of the student-operated business; (4) the operational policies necessary for the business; (5) the distribution of profits from a student-operated business. The Flint Hills Area Vocational-Technical School pilot project was used as an example.

The procedures were to develop a basic proposal and discuss it with local and state educational people.

Work schedules were designed to insure that all students would have an opportunity to participate. An agreement was made with the S and S Oil Company to use their station located at sixth and Rural in Emporia, Kansas, as the student-operated business.

The proposal was then put into operation. The operation was reviewed daily to see if the business was increasing or staying static. The fluctuation in sales was used to evaluate the methods of management that were being applied.

Summary

The review of literature indicated that distributive education, as a part of vocational education, is designed to meet the needs of persons who have entered or are planning to enter a distributive occupation or an occupation requiring competency in one or more of the marketing functions.

The student-operated business was suggested as a logical way of placing classroom learning into a realistic situation. A school-operated store produces a learning situation unmatched in the classroom. The teaching of topics of buying, display, merchandising, stockkeeping, and merchandise control are fortified by the operation of a school store.

The student-operated business provided management experience for all students enrolled in the distributive education program. Students were rotated from one job to another within the business. The students were able to see the problems arising within the business, make decisions, and see the effects the decisions had upon the problem.

The preliminary planning consisted of (1) developing a lease arrangement agreeable to both the school and the S and S Oil Company; (2) the establishment of a trade advisory committee; (3) acquiring the necessary insurance needed by the business; (4) acquiring the necessary state and federal licenses and employment identification numbers.

The operational policies need to operate a student-operated business were developed. The policies consisted of (1) a work schedule; (2) a method of pricing and marking merchandise; (3) an adequate bookkeeping system; (4) a method of controlling the inventory; (5) the advertising media used; (6) a method of utilizing the profits.

Conclusions

The student-operated business provided a realistic situation in which to teach buying, display, merchandising, stockkeeping, and merchandise control.

An advisory committee was essential to insure that the business was well accepted into the business community. The advisory committee was also helpful in overcoming operational problems.

Insurance coverage is necessary to limit the liability in case of an accident or an injury to an employee.

A work schedule with a breakdown of job duties should be worked out in order to insure that all students will have an opportunity to profit from the training.

A method of pricing and marking the merchandise should be

established to insure a margin that will provide for the operational expenses of the business and a predetermined profit.

An adequate bookkeeping system should be set up to insure the success of the business. The bookkeeping system should make provisions for control of cash receipts, a procedure for banking, and a method of paying accounts.

An inventory control system is a necessity because of the number of employees and the ever changing members of the management team.

A method of utilizing the profits from the operation of the business should be provided. This will eliminate any confusion as to what to do with the profits.

Recommendations

On the basis of the findings and conclusions, the following recommendations were made.

1. It is recommended that the guidelines developed in this study be used by other interested distributive education coordinators in developing student-operated businesses.
2. It is recommended that distributive education coordinators interested in developing student-operated businesses take into consideration the additional time involved along with the additional classroom benefits.
3. It is recommended that distributive education coordinators interested in developing student-operated businesses develop businesses with operating hours closer to those of the school.
4. Also, it is recommended that additional research be conducted to determine better ways of operating student-operated businesses.

A STUDY OF THE EMPLOYMENT CHARACTERISTICS OF THE
NORTHEASTERN NEBRASKA COLLEGE FRESHMEN,
FALL, 1972

Hamman, Robert Lee
M.S.

Emporia Kansas State College
1972

Statement of the Problem

The purpose of the study was to determine the employment characteristics of freshmen and their interest in a cooperative education program. These freshmen were those attending the orientation session when entering Northeastern Nebraska College, Norfolk, Nebraska, in September of 1971. A total of 220 freshmen completed the survey form during the orientation. This group of 93 females and 127 males represented 80.5 per cent of the class.

Procedures

In May, 1972, the surveyed freshmen were written to request an interview. On cards returned to the author, freshmen indicated an interview time or indicated no interest in an interview. During the interview with the author, students were asked of their future plans, asked for current information, and told about the cooperative education program at Northeastern Nebraska College.

Findings

From the survey forms completed by the freshmen in the fall of 1971 substantial data were gathered. It was found that 58.6 per cent of the freshmen desired part-time employment while attending college. Fifty of the freshmen had actually applied for a job in Norfolk since graduation from high school. In the survey 40 per cent of the students were employed during the 1970-1971 school year. Almost the same percentage of students indicated that they were working at the time of the survey with 39 per cent of the students reported to be employed.

The findings of the study indicated that most employed freshmen worked 13 to 25 hours per week. However, 20 per cent of the males worked over 32 hours per week. Of the freshmen reported to have been employed at the time of the survey, 55 per cent were found to have held some type of distributive occupation.

Forty per cent of the males and 60 per cent of the females indicated an interest in cooperative education on the survey form. The office occupations area was the most popular area with 46 per cent of the students desiring cooperative training in this area.

Seventy-six per cent of the freshmen males planned to attend a four-year college, while only 43 per cent of the females planned to do so. The highest percentage of females desiring cooperative education was among those not planning to attend a four-year college.

Of the 159 letters sent requesting an interview, 102 students were interviewed. Through the interviews, eleven students were found that desired to enter the cooperative distributive education program at Northeastern Nebraska College in the fall. Five of the students interviewed were pre-enrolled for the cooperative office education program, while seven others were interested in being placed on jobs and entering this program.

Conclusions

From the data collected and analyzed, the following conclusions were drawn:

1. This study, due to the interviews and other related activities, informed many students of cooperative education that would not otherwise have obtained that information.
2. The majority of freshmen males attending Northeastern Nebraska College plan to attend a four-year college.
3. More females consider their formal education to be terminal after one or two years at Northeastern Nebraska College than do males.
4. Even though most working students are employed in distributive occupations, comparatively few desire training in this occupational area.
5. Though most freshmen female students desire work experience in office work, few incoming freshmen held such jobs.
6. Cooperative education appears to appeal primarily to Northeastern Nebraska College females who do not plan to attend a four-year college.

7. The large majority of employed freshmen females appear to hold "entry-level" jobs.

8. Students desire work experience in connection with a college class in occupational areas other than in office and distribution.

9. Approximately two-thirds of the freshmen males were unemployed.

10. There is a large difference in the number of students who indicated that they wanted part-time employment while attending college and the number of students who actually applied for such employment.

11. The method used in this study proved successful in this case to recruit students for the cooperative distributive education program.

Recommendations

It was recommended that a promotional and informative program on cooperative education be presented at the freshmen orientation program at Northeastern. A study similar to this one was recommended as well as a study to consider the feasibility of a program offering work in areas other than those now offered. Another study was recommended to determine the reason for the difference between the number of students desiring part-time work and the number actually applying for the jobs.

A STUDY OF THE SOURCES AND METHODOLOGIES USED
IN THE EDUCATIONAL NEEDS ASSESSMENT PLANS
OF THE PLAINS STATES, TITLE III, ESEA

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1969

The concern of educators and other groups within the nation over the quality of education offered in the elementary and secondary schools was reflected in the Elementary and Secondary Education Act of 1965 (ESEA). This act provided funds to be made available to the states for developing innovative methods and programs of education to be later incorporated into the states' school systems to the extent that the programs proved to be successful. Also included in the ESEA were provisions for assessment of the states' educational needs. Funds were provided for this assessment and the subsequent state planning for the fulfillment of the needs.

Most states had not done extensive work in the assessment of educational needs prior to 1965. The machinery was not established and those agencies that did exist lacked the lines of communication and coordination to do comprehensive planning of the scope necessary to accomplish the goals indicated by the ESEA. However, the states responded in varying degrees to the task and some have developed rather extensive plans for this purpose.

In order for the states to assess their needs it has been necessary to decide sources of information, methods for obtaining the information and provide some assurances that the assessment was valid. It is with these aspects of needs assessment that this study is concerned.

Statement of the Problem

The problem will be to determine the following aspects of state ESEA needs assessment plans:

1. The most common sources of information used.
2. The methodologies used to obtain the information.
3. The strengths and/or weaknesses of the plans in regard to the sources and methodologies they use.

Importance of the Study

Though there are many facets to a comprehensive plan of state needs assessment, at the very heart of such a plan must lie the choice of sources and methodologies for obtaining data from the sources. Obtaining a reasonably true assessment depends on the validity of the sources and the methodologies. This study was undertaken in order to provide a clearer picture of what has been done in this area and indicate some of the more important considerations involved in selecting sources and methodologies for this type of educational research.

Conclusions

Several conclusions can be made from this study. The task represented by the Title III, ESEA needs assessment plans is a formidable one. In most states only a small part of the machinery, if any, was available for such extensive planning. Since the inception of the Elementary and Secondary Education Act of 1965, most of this machinery had to be developed. The plans represented in this study are the outcomes of the first attempts at putting the machinery to work, locating its weaknesses, rebuilding, maintaining it and devising new parts to do new tasks as the need for them develops. The various state departments of education were given considerable latitude in the developing of plans for needs assessment and they responded in a variety of ways. This is reflected in the choices of sources and the methods for dealing with those sources indicated by the plans included in this study. The variation in the stages of development of these seven plans could be an indication of the difficulties encountered by those responsible for assessing educational needs in developing and putting into operation such a plan.

In general, however, the strengths of the plans in regards to the sources and methodologies they used lay primarily in the area of the extensive studies of existing data. State plans submitted by Kansas, Nebraska and North Dakota provided examples of broader studies and could possibly suggest trends to be considered by other states making plans for needs assessment.

Weaknesses that bear mention would be the omission of large segments of the population as actively contributing sources of information, lack of consideration for goal establishment, reliance upon one method of obtaining data and lack of stated philosophical bases from which to work. These conclusions lead to several recommendations.

Recommendations

Based on the conclusions made from this study, the following recommendations are made concerning the Title III, ESEA needs assessment plans of the Plains States:

1. A thorough study of future plans should be made in order to determine different sources and methodologies that may be indicated by those plans.
2. A study of the results of the needs assessment plans should be made in order to make comparisons against other plans of educational research.
3. Additional attempts by such plans to involve the general public in the assessment of educational needs should be made.
4. A greater use of cooperative studies is recommended to actively involve as many segments of the population as possible.
5. Additional provisions should be included for active student involvement in needs assessment.
6. More provisions for dealing with the behavioral aspects of education should be considered.
7. Auxiliary school personnel might be more actively involved.
8. The state legislature should be included to a greater extent in the assessment of educational needs.
9. Business and industry could be involved to a greater and in a more direct manner.
10. A wider variety of methods should be developed for obtaining information about educational needs.
11. More specific programs need to be developed for continuing assessment.
12. Present educational goals should be evaluated and future goals should be anticipated and developed.

13. Continuous research to develop sources and methodologies for educational needs assessment should be considered.

14. Philosophical bases should be developed as guides for needs assessment planning.

A STUDY OF THE DATA PROCESSING PROGRAM AT HASKELL INDIAN JUNIOR COLLEGE

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1972

This study was initiated with the desire to gain insight into the data processing program at Haskell Indian Junior College. In defining the problem the following concerns were surveyed: the history of the data processing program, the types of students enrolling in data processing courses, and whether the program was meeting the needs of the students and staff.

Data was obtained from students, staff, school records, and the 1971-72 school roster. Information such as the students' high school grade point averages, American College Testing scores, sex, attrition rates, reservation or non-reservation backgrounds, was gathered about the data processing students. Some information was obtained by questionnaires given to students and staff.

A comparison of various factors were analyzed to determine the characteristics of certain groups of data processing students. Most of the statistics were computed by an IBM-360 computer.

In evaluating the results of the study, it appears that the average data processing students were not significantly different from their peers in GPA or ACT average scores. In analyzing the data processing students by ACT scores, 50 per cent of the students were in the ACT scores ranging from 1-10. Of the 282 business and general education students, 60 per cent were in the 1-10 ACT range. It seems that the ACT scores do not accurately reflect the knowledge of the Haskell students.

Of the students coming from public, bureau and mission high schools, those students coming from the public high schools had the lowest average GPA and the highest average ACT scores. There seems to be a difference in the degree of difficulty in the grading scales at the different types of high schools.

In general, more of the students who withdrew were from reservations. It appears that more pressure to stay in school is placed on the non-reservation students.

Of those enrolling in data processing courses, 35 per cent indicated data processing as a major. The remainder of the students were taking the course as an elective. It seems that more students are becoming aware of the need for an elementary knowledge of the computer.

It appears that Haskell is recognizing the importance of the computer, and will tend to make further inroads into the usage of the computer for the administration, staff, and students.

AVAILABILITY AND USAGE OF AUDIOVISUAL MEDIA IN SELECTED ELEMENTARY SCHOOLS OF KANSAS

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1973

Statement of the Problem

The problem with which this investigation was concerned involved audiovisual media usage in a selected group of Kansas elementary schools. The areas surveyed in regard to this problem were:

1. What was the attitude of the principal toward the use of audiovisual media?

2. What were the attitudes of teachers toward the use of audio-visual media?
3. Was in-service training in the field of audiovisual media provided within the school?
4. To what extent were audiovisual media available within the school?
5. To what extent were audiovisual media utilized by the teachers?

Conclusions

Data for the study was gathered through the use of a questionnaire that was sent to eighty-one principals of Kansas elementary schools. The response to the questionnaire was considered to be quite good, in that 88 per cent of the questionnaires were returned. Although 74 per cent of the questionnaires were returned by the principals of the large schools division, the data relating to that group would certainly have been more comprehensive, if a greater number could have been secured from the principals of this group.

It is felt that the study presents data from a wide cross-section of Kansas schools, in that schools of all sizes, from all parts of Kansas were represented. Also, a wide variety of organizational patterns were found in the various schools.

The data indicated that the principals in the large schools rate themselves higher in the personal acceptance of the utilization of audio-visual media in their school than did the principals of the small and medium schools. A possible explanation for this could be that the more progressive principal tends to advance to the larger school, although it is realized that this is not true in every situation.

According to the data, all of the principals surveyed rated themselves average or above in the area of providing leadership to the teachers under their supervision in the use of audiovisual media. It is interesting to note that there was little difference in the responses by the principals, based upon school size or geographic location within the state. One would question if the principals were completely objective in their responses to this item.

The data indicated that the principals believed that primary teachers had the best attitudes towards the use of audiovisual media, intermediate teachers ranked in the middle, and the upper grade teachers

were evaluated by their principals as being slightly below the other two groups.

The writer was encouraged by the fact that there was only a slight difference between the attitudes of the three groups, as he believed that the attitudes of the upper grade teachers would probably be considerably poorer than the data indicated.

According to the evaluations of the principals, the majority of the teachers exhibit little or no hesitancy towards the use of audiovisual media. It is worthy of note that only a very few teachers have serious doubts, in regard to media usage.

Apparently, there is no single major factor that contributes to teacher hesitancy in the use of audiovisual media. Thirty per cent of the principals indicated that "complexity of media" was a contributing factor, 24 per cent felt that "fear of the unknown" played a role in teacher hesitancy in the use of media, while 46 per cent indicated that some other factor was involved. Some of the major "other" factors indicated, included lack of time, lack of suitable material, lack of innovative ability, fear that the desired results will not be achieved, lack of experience, and a lack of preparation.

Approximately one-half of the schools surveyed, use a formal teacher evaluation instrument that includes items related to teacher competencies in regard to the use of audiovisual media. This figure applied to all the schools in the survey, irregardless of school size or geographic location.

The majority of the schools surveyed, provided some sort of in-service training related to audiovisual media for their teachers. Not surprisingly, the larger schools do a somewhat better job of this than do the schools in the other two groups.

Most of the principals felt that in-service training was "somewhat effective", and all of the principals in schools not having such a program, indicated that a need existed.

Approximately three-fourths of the schools reported a media center in their building, while 64 per cent indicated the availability of a librarian or media specialist.

According to the data, all of the schools responding to the survey,

possessed a filmstrip projector, an overhead projector, and a phonograph. The 8mm movie camera and closed circuit television was available in the smallest number of schools. It would appear, according to the data, that the schools responding, are relatively well equipped, especially with the more common media such as the phonograph, overhead projector, and the filmstrip projector.

Recommendations

In any undertaking, hindsight is always more objective than that of foresight, and in the writer's opinion, this would apply to this study. The area of study should have been limited, rather than trying to cover the whole gamut of the audiovisual "situation". Further studies concerned with a specific area, such as, principal's attitudes, teacher attitudes, the degree of audiovisual usage, the effectiveness of usage, or the role of the media center would be more manageable. Also, the researcher would be able to pursue the topic in much greater detail than was possible in this paper.

It is felt that more careful attention should have been given to the development of the questionnaire. It should have been more concise and to the point. It would have helped if it had been tested more thoroughly before being used in the general survey.

In any future study, it is suggested that the sample size be increased, so that the various divisions in the population would have a larger representation.

THE NUMBER OF KANSAS BUSINESS OCCUPATIONS GRADUATES IN
JOBS RELATED TO THE PROGRAM FROM WHICH THEY WERE
GRADUATED FOR THE YEARS 1966, 1968, AND 1971

Pickering, Margaret A.
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Statement of the Problem

The purpose of this study was to determine the number of business occupations graduates from vocational-technical programs who were employed in jobs related to the programs from which they were graduated. The school years used in this study were 1965-66, 1967-68, and 1970-71.

A secondary purpose of this study was to determine and compare the percentage of placements from vocational-technical programs in small-, medium-, and large-sized schools.

Importance of the Study

The importance of this study was to make available to the Vocational Education Division of the Kansas State Department of Education, school administrators, local coordinators, advisory committees, and area businessmen information on the number of business occupations graduates who were employed in jobs which were related to the vocational training they received in school. This information was beneficial in that it aided in determining whether the present programs were offering needed courses and course content. This study also provided information concerning the sizes of schools from which business occupations students were graduated, and how the placements of those in occupations related to their training compared from one size of school to the other.

Methods of Procedure

The data used in this study were taken from data collected during the Pilot Phase of the Computerized State-Wide Follow-Up System. During this phase of the System, a sampling was taken of vocational education graduates for the years 1965-66, 1967-68, and 1970-71. Of those sampled, 395 were business occupations graduates, or 9.4 per cent, of the total business occupations graduates for the three years.

Business occupations included distributive education and office education graduates. It was determined that this sampling was sufficient to obtain information concerning the occupational activities of business occupations graduates and was sufficient for deciding whether these activities were related to their training.

Summary

The data presented were summarized as follows:

1. There were 4,178 distributive education and office education graduates during the three school years, 1965-66, 1967-68, and 1970-71, used for the Computerized State-Wide Follow-Up Study.
2. The 4,178 business occupations students consisted of 1,628 in distributive education programs, 2,303 in office education programs, and 184 in combination programs.
3. There were 395 business occupations students selected for the sampling. Of these students, 140 were in distributive education and 255 were in office education.
4. Two hundred twenty-five questionnaires, or 56.9 per cent, were returned by the business occupations graduates. Sixty-four of the returns were from distributive education graduates, and 161 were returned from office education graduates.
5. Twenty-one, or 33.0 per cent, of the 64 distributive education graduates responding to the questionnaire were employed in jobs related to their training.
6. Seventy-one, or 44.0 per cent, of the 161 office education graduates responding to the questionnaire were employed in jobs related to their training.
7. Of the 60 schools in Kansas that had business occupations programs, 41, or 68.3 per cent, were small schools; 11, or 18.3 per cent, were medium-sized schools; and 8, or 13.3 per cent, were large schools.
8. Of the 29 schools that had distributive education programs, 19 were small schools, 6 were medium-sized schools and 4 were large schools.

9. Of the 53 schools which had office education programs, 36 were small schools, 11 were medium-sized schools, and 6 were large schools.

10. Forty-three, or 67.2 per cent, of the distributive education graduates responding to the questionnaire were from small schools; 9, or 14.0 per cent, were from medium-sized schools, and 12, or 18.8 per cent, were from large schools.

11. One hundred, or 62.1 per cent, of the office education graduates responding to the questionnaire were from small schools; 43, or 26.7 per cent, were from medium-sized schools; and 18, or 11.2 per cent, were from large schools.

12. Of the 21 distributive education graduates responding that their jobs were related to their training, 11, or 52.7 per cent, were graduated from small schools. Eight, or 38.2 per cent, were graduated from medium-sized schools, and 2, or 9.6 per cent, were graduated from large schools.

13. Of the 71 office education graduates responding that they were employed in jobs related to their training, 41, or 56.7 per cent, were graduated from small schools; 22, or 30.8 per cent, were graduated from medium-sized schools; and 8, or 11.2 per cent, were graduated from large schools.

Conclusion

Based on the data presented, the following conclusions are made:

1. More students were in office education programs than in distributive education programs during the years 1965-66, 1967-68, and 1970-71.

2. Over one-half of the business occupations graduates sampled responded to the porta-punch card questionnaire sent by the staff of the Computerized State-Wide Follow-Up System research project.

3. Less than one-half of the distributive education graduates and office education graduates were employed in jobs related to their training.

4. Of the schools in Kansas that had business occupations programs, most of them were small schools. There were more medium-sized schools than there were large-sized schools.

5. Most of the graduates responding to the porta-punch card questionnaire were graduated from small schools. There were more graduated from medium-sized schools than from large-sized schools.

6. Over one-half of the graduates whose jobs were related to their training were graduated from small schools. The least number of graduates whose jobs were related to their training were graduated from large-sized schools.

7. Proportionately, there were more distributive education graduates who were graduated from medium-sized schools in jobs related to their training than there were from small- or large-sized schools.

8. The proportion of office education graduates who responded from small-, medium-, and large-sized schools approximated the proportion that had jobs related to their training.

Recommendations

Based on the data presented and the conclusions drawn, the following recommendations were made:

1. A similar study involving a larger population of business occupations graduates should be done.
2. A study including more graduates from three or five years ago should be done to determine if a larger number of graduates return to jobs related to their training.
3. Further study should be made to find out why more distributive education graduates were not employed in jobs related to their training.
4. A study should be made to determine why there are more students enrolled in office education programs than in distributive education programs.
5. A study should be made to determine why more distributive education graduates from small and large schools were not employed in jobs related to their training in proportion to the number of graduates.

A SURVEY TO DETERMINE THE NEED AND RECOMMEND A
CURRICULUM FOR A POST SECONDARY DISTRIBUTIVE
EDUCATION PROGRAM AT NORTHEAST KANSAS AREA
VOCATIONAL-TECHNICAL SCHOOL AT ATCHISON, KANSAS

Ruby, Mike J.
M. S.

Emporia Kansas State College
1974

The purpose of this study was two-fold: (1) to determine the need for a post secondary distributive education program at Northeast Kansas Area Vocational-Technical School at Atchison, Kansas, by studying population statistics, and interviewing employers and businessmen in the Atchison and Leavenworth area, and (2) to recommend a curriculum for the program at Northeast Kansas Area Vocational-Technical School.

Methods of Procedure

It was believed that a review of the 1967 Retail Trade Census and the 1970 United States Population Census for the northeast Kansas region would reveal the information needed to determine the population characteristics. Much of the information is presented in quantitative terms and is analyzed statistically so that its meaning could be interpreted with a certain degree of reliability.

Population characteristics of the seven northeast Kansas counties were combined and analyzed to determine the trends and patterns of the people. Among the population characteristics studied were: (1) the population census of the seven counties, (2) the net in-migration of people into the area, (3) number of employees in various industry divisions, and (4) wholesale and retail trade statistics of the seven county area.

A systematic investigation into this data was then followed to determine if a need does exist for a distributive education program to be offered at Northeast Kansas Area Vocational-Technical School at Atchison.

In addition to the census data, two other sources were consulted in order to recommend a distributive education curriculum. A survey of 50 Atchison and Leavenworth merchants was taken, and curriculums

of other secondary and post secondary distributive education programs in Kansas were studied.

A 26-question, two-page questionnaire was sent to 50 Atchison and Leavenworth merchants representing a cross section of wholesale and retail firms. The businessmen were surveyed to find out what competencies and skill areas they believed should be included in a post secondary distributive education curriculum. A check list format was the prevalent method used, but they were also encouraged to express their opinions and suggestions in blank spaces provided. Merchants were asked to return the completed questionnaire by mail. Those who had not responded within three weeks were again contacted and encouraged to take part in the survey.

Information about curriculum offerings from other distributive education programs within Kansas was obtained by personal interviews with distributive education instructors-coordinators as well as obtaining written handbooks, pamphlets, or brochures from the business education department of various post secondary schools in Kansas to determine their course content, policies and procedures. The programs were compared and a list of common course offerings was then selected as the primary criteria for the distributive education curriculum at Northeast Kansas Area Vocational-Technical School at Atchison.

All data was then collected and analyzed for this report. Many of the statistics are illustrated in tables and graphs for easier interpretation.

Conclusions

The conclusions that follow were made from the data presented in the third chapter of the research project.

1. Businessmen want to work in conjunction with the school in teaching their employees desirable distributive education competencies.
2. Distributive education programs are respected by the majority of the business community and businessmen are willing to support the program.
3. Businessmen think highly of qualified post secondary distributive education graduates and are willing to employ them.

4. The population of northeast Kansas is growing but at a slow rate.

5. There are enough employers in the northeast Kansas region to provide jobs for distributive education graduates.

6. Present distributive education curriculums are consistent in recommending or requiring several basic education courses that aid the student to become a better employee.

7. There is a significant number of young adults in the northeast Kansas counties to justify a post secondary distributive education program.

Recommendations

In view of the findings of this study, the following recommendations are made:

1. It is recommended that a two year post secondary distributive education program be part of the curriculum offerings for the Northeast Kansas Area Vocational-Technical School at Atchison, Kansas.

2. For those students who have successfully completed a secondary distributive education program, only one additional year of study should be required in a post secondary distributive education program.

3. It is recommended that a combination of the sample curriculums enclosed be used as guidelines for developing a distributive education curriculum. (See original document) Special attention needs to be focused on available faculty members, and physical limitations of the school in regard to classroom space and laboratory areas.

4. The distributive education curriculum should include courses in English, marketing, human relations, speech, principles of accounting, and advertising as required courses.

5. It is recommended that a detailed follow-up study of each graduate of the program be done for a period of not less than five years. The purpose of this is so graduates can supply input into what course offerings should be revised so as to make a more relevant program.

6. It is recommended that a similar study be made to find alternative plans for providing the student with on-the-job training. Some possibilities that could be considered are: (1) let the student work half days everyday for two years, (2) have the student in an alternating plan where he would be in the classroom full-time for nine weeks, and then work full-time on a job for nine weeks, exposing the student to a different job environment each semester, and (3) having the student follow the same plan as described in alternative two, but he would rotate between the classroom and the job on a semester basis, rather than quarterly.

ANALYSIS OF VOCATIONAL TRAINING AT THE HUTCHINSON STATE REFORMATORY UNDER THE MANPOWER DEVELOPMENT AND TRAINING ACT

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1973

The purpose of this study was to determine the employment success record and cost-benefit of Kansas State Industrial Reformatory Manpower Development and Training Program trainees as compared with inmates receiving no vocational training. Non-trainees were involved only in institutional work experience details.

The analysis and review surveyed the training project KS (KM) 0007 beginning March 1970 and ending April 1972. Inmates were in the program for approximately an average of 40 weeks of training. Only trainees who were paroled into supervision were included because of the necessity for acquiring follow-up information. Trainees who began and finished in the project year and were paroled numbered sixty-seven and served as the training group for the study.

The control group reviewed was from the general population of inmates from the institution who had been assigned in the work detail programs. Parole period for trainees was from May 1970 to August 1972 and the control group was composed of eighty-seven prisoners paroled during that period.

The historical method of research was primarily used to establish documentation for change. Two main sources provided the bulk of information of which conclusions were drawn from the Abt Associates study conducted in 1969 through 1972 funded by the United States Labor Department through MDTA and the follow-up report conducted annually by the Kansas State Employment Service and the Central Kansas Area Vocational Technical School.

The summary of major findings in this study resulted in numerous conclusions:

1. The MDTA trainees at the Kansas State Industrial Reformatory had significantly lower recidivism rates (22 per cent) than their corresponding controls (41 per cent).
2. The over-all placement and follow-up of trainees from the MDTA project revealed an 88.6 per cent placement of students into employment.
3. The reduction in the rate of recidivism for trainees compared with the control group was a result of training.
4. The training and control groups were found to be equal on the variables of primary offense, race, employment upon release, age, educational level, number of dependents, minimum and maximum controlling sentence and all categories of wages.
5. Only 29 per cent of the trainees found training related employment while 71 per cent did not.
6. The wages for both groups were not significantly different at all levels studied.
7. Negative attitude was responsible for inmates not being paroled immediately after graduation from the MDTA program.
8. Trainees were found to pay back to society their cost of training at 13.69 months. The ability of trainees to pay the cost of training back was primarily a result of the graduates remaining out of prison, after release, and working.

This analysis demonstrated that the training program was responsible for reducing the rate of recidivism by approximately one-half over a corresponding rate of the control group. Economically, the lower recidivism rate was the reason trainees were able to pay back to society their cost of training.

A COMPARATIVE STUDY OF THE JOB DUTIES OF THE SECONDARY
AND POST-SECONDARY COOPERATIVE DISTRIBUTIVE EDUCATION
STUDENTS IN KANSAS, 1970 AND 1974

Scheaffer, Harold W.
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1974

The major purpose of this study was to analyze the training memorandums of the 1973-74 secondary and post-secondary distributive education students in Kansas. The analysis was performed in order to determine the significant job duties performed by cooperative distributive education students in Kansas. The cooperative distributive education students were from both secondary and post-secondary schools. The data obtained from this study were compared to the data obtained from a similar study conducted in 1970 by O'Connor.

All available training memorandums of the 1973-74 distributive education students in Kansas were obtained from the Kansas State Department of Education, Division of Vocational Education, Topeka, Kansas. From information recorded on these memorandums, data were obtained, interpreted and statistically tested.

Summary of Findings

To determine the significant job duties performed by cooperative distributive education students in 1973-74 the confidence interval was used. Rank correlation was used to determine the significance of the change in the performance of these job duties between the school years 1970 and 1974.

A summary of the significant and important job duties performed by cooperative distributive education students in both 1970 and 1974 is as follows:

1. The job duties performed in restaurants by secondary cooperative distributive education students in both 1970 and 1974 were selling, cash register operation, and housekeeping duties.
2. The job duties performed in grocery stores by secondary

cooperative distributive education students in both 1970 and 1974 were cash register operation and pricing and marking merchandise.

3. The job duties performed in variety stores by secondary cooperative distributive education students in both 1970 and 1974 were selling, cash register operation, pricing and marking merchandise, stocking merchandise, and housekeeping duties.

4. The job duties performed in department stores by secondary cooperative distributive education students in both 1970 and 1974 were selling and cash register operation.

5. There were no job duties performed in discount stores by secondary cooperative distributive education students in both 1970 and 1974.

6. Selling and cash register operation were the job duties performed in drug stores by secondary cooperative distributive education students in both 1970 and 1974.

7. The job duty performed in apparel and accessories by secondary cooperative distributive education students in both 1970 and 1974 was constructing displays.

8. There were no job duties performed by secondary cooperative distributive education students in both 1970 and 1974 in the following areas: automotive and petroleum; hardware and supplies; wholesaling; jewelry stores; and miscellaneous distributive occupations.

9. The job duties performed by the total sample of secondary cooperative distributive education students in both 1970 and 1974 were selling, cash register operation, pricing and marking merchandise, and housekeeping duties.

A summary of the significant and important job duties performed by post-secondary cooperative distributive education students in both 1970 and 1974 is as follows:

1. The job duty performed in department stores by post-secondary cooperative distributive education students in both 1970 and 1974 was selling.

2. There were no job duties performed by post-secondary cooperative distributive education students in both 1970 and 1974 in the occupational areas of apparel and accessories and grocery stores.

3. Receiving merchandise was the only job duty performed in miscellaneous distributive occupations by post-secondary cooperative distributive education students in both 1970 and 1974.

4. Selling was the only job duty performed by the total sample of post-secondary cooperative distributive education students in both 1970 and 1974.

Conclusions

The following conclusions were drawn from the information presented:

1. The Spearman Rank Correlation Coefficient determined that there was a significant change in the rank order of job duties performed.

2. The comparison charts show that there is a greater number of significant and important job duties being performed by secondary and post-secondary cooperative distributive education students in 1974 than there was in 1970.

3. The comparison charts also show generally more significant but not important job duties being performed by secondary and post-secondary cooperative distributive education students in 1974 as compared to 1970 in Kansas.

4. There were more job duties performed at the .99 level of confidence in 1974 than in 1970.

5. The job duties not performed in 1974 were generally the same as those job duties not performed in 1970.

6. The most significant job duties performed by secondary cooperative distributive education students were: selling; cash register operation; receiving merchandise; pricing and marking merchandise; checking merchandise; storing merchandise; stocking merchandise; housekeeping duties; and sacking and wrapping.

7. The least significant job duties performed by secondary cooperative distributive education students were: taking telephone and mail orders; buying and ordering; paying invoices; making deliveries; laying out advertisements; bookkeeping; timekeeping; making credit collections; preparing statements; adding machine operation; running errands; and mailing correspondence.

8. The most significant job duties performed by post-secondary cooperative distributive education students were: selling; cash register operation; taking inventory; receiving merchandise; pricing and marking merchandise; stocking merchandise; and housekeeping duties.

9. The least significant job duties performed by post-secondary cooperative distributive education students were: making deliveries; laying out advertisements; bookkeeping; preparing statements; making credit collections; timekeeping; assisting department manager; and supervising.

Recommendations

After completing this study of training memorandums, the following recommendations were made:

1. Future studies of this nature should be made to keep up with changing job duties within distributive occupations.

2. A general training curriculum should be developed for the significant and important job duties performed by secondary and post-secondary cooperative distributive education students in 1973-74.

3. A uniform training memorandum should be developed for state-wide use.

4. The wage earned by the student should be stated on all training memorandums for the purpose of wage data analysis.

5. For secondary students who enroll in a post-secondary program, a comparison of the job duties performed should be made to determine if the post-secondary programs are offering advanced training.

6. The results of this study should be made available to Kansas Distributive Education coordinators to make them aware of the significant and important job duties performed by secondary and post-secondary cooperative distributive education students.

7. Training for the job duties performed should be implemented at the beginning of the cooperative distributive education curriculum.

8. Training for the job duties not performed by a significant number of students at the beginning of the year should be included before the cooperative training is completed.

A SURVEY TO DEVELOP AND ESTABLISH A RESIDENT
ASSISTANT TRAINING PROGRAM AT THE
COLLEGE OF EMPORIA

Stauffer, Gene A.
Ed. Specialist

Emporia Kansas State College
1972

The purpose of this study was to create a suitable program for resident assistants living in The College of Emporia residence halls. This study was important to The College of Emporia, as the institution attempted to respond to the needs of students. The College believed that resident assistants, by virtue of their positions, could have a personal and significant effect upon the development of students who lived in their halls.

Because of the shift toward more counseling and advisement, it seemed increasingly important to encourage training and development among resident assistants. Training and development in self-understanding, and in sensitivity to and awareness of others was important in the discharge of their residence hall responsibilities.

To most students, a good residence hall program should be helpful in making their college experience a successful one. As a part of this program, it was believed the resident assistant could be a valuable staff member since no other college representative had such consistent contacts with students. Resident assistants could assert great influence on the students' environment and be of help to individual students. Since students sometimes exhibited a distrust for the establishment, it seemed timely for a resident assistant program to focus greater attention on the personal and academic

development of each student in the hall. Interacting with the other residents and participating in the activities of the housing were all considered important parts of college life.

The student personnel services, to which the counseling services were related, was specifically charged with the responsibility for the overall direction of hall programs at The College of Emporia. The role of the resident assistant at The College of Emporia had not been completely defined. The administration at The College of Emporia was concerned with this problem and shared the desire to find new methods and suggestions for improvement of the resident assistant programs.

Statement of the Problem

This study was to determine, by careful examination of planned programs for resident assistants in various colleges and universities in the Middle-West, what should be included in the development of a resident assistant program for The College of Emporia.

It is important to note, however, that the purpose of this study was to develop a program specifically to meet the needs of the students and administration at The College of Emporia.

Recommendations

The purpose of this study was to present a program for resident assistants living in The College of Emporia residence halls. A program for resident assistants was suggested in a study of the entire personnel services at The College of Emporia seventeen years ago. It was recommended in this study that it would be well to investigate the possibility of inaugurating in-service training for advisors. The results of this study indicated that many advisors were not fulfilling their responsibilities to their students. The study further stated the administration may well consider the possibility of a better method of selection of advisors.

The program recommended in the present study hopefully is one that will be self-perpetuating and not be effected by changes in administrative personnel. Implementing this program for resident assistants will be a challenge for the student personnel services department at The College of Emporia. It is apparent that this program cannot be evaluated in entirety for at least one school term. A major area of concern in developing this program for

resident assistants was determining the desirable level of counseling to be provided for student residents. The performance of the resident assistant in one-to-one and group counseling relationships may well be the key to an effective program. Effective work at this level depends upon mutual understanding among the staff of the student personnel services department.

The Director of Counseling Services can informally give encouragement and support to residence hall staff members. This can be accomplished by eating meals with the staff, visiting them in the residence hall, and occasionally attending various programmed activities of the hall. Informal consultation with staff members in respect to current problems they may be having could easily justify the time spent.

By proper utilization of all staff members, it is hopeful that this program for resident assistants will offer real opportunities for working informally with students as they discover their interests, develop their potentials, and resolve problems related to their personal growth.

A COMPARATIVE ANALYSIS OF MANIPULATIVE DEXTERITY TO TYPEWRITING SPEEDS

Thompson, Milton L.
M. S.

Emporia Kansas State College
1973

The purpose of this study was to determine if there was a correlation between a student's manipulative dexterity and his typewriting speed average on nine five-minute timed writings. Related to this purpose, the following questions were to be answered: (1) Is there a definite correlation between a student's typewriting speed and his score on the Purdue Pegboard? (2) Can a student's typewriting speed be predicted in advance as a result of the Purdue Pegboard test? and (3) Should this test be administered to prospective beginning typewriting students to give some indication of success?

The principal limitation of this study was that only students from Atchison County Community High School at Effingham, Kansas, were used.

Methods of Procedure

The plan of this study fell under a testing program. The first step in the procedure was to select first-year beginning typewriting classes. Three classes of Typewriting I students were selected for this study, for a total of 73 students. The second step was to administer the Purdue Pegboard test. The third step was to administer five-minute timed writings during the second semester. The fourth step was to compare the results of the R+L+B manipulative dexterity score and the Assembly score to the student's five-minute timed writing average. The statistical analysis computed was the Pearson product-moment correlation of coefficient.

The manipulative dexterity test used for this study was the Purdue Pegboard, developed by the Purdue Research Foundation, Purdue University. The Purdue Pegboard test is a test of dexterity for measuring two types of activities, one involving gross movement of hands, fingers and arms, and the other involving primarily what might be called "fingertip" dexterity. Two scores were used for analysis: (1) the right plus left plus both (R+L+B) and (2) the assembly. The manipulative dexterity test was administered during February, 1972.

The data for typewriting speeds were based on nine five-minute timed writings from straight-copy material administered during the last nine weeks of the school term.

Findings of Research

R+L+B manipulative dexterity test. The R+L+B score is the number of pins placed with the right hand plus the number of pins placed with the left hand plus the number of pairs of pins placed with both hands.

The scores ranged from 52 to 24 pins placed on the R+L+B test with a crude mode of 42.5. This showed that the most frequent occurring score on the R+L+B test was 42.5 with fifteen students out of seventy-three falling on the mode. The mean score of the R+L+B test was 42.2 pins placed and the median score was 42.8.

Assembly Test

The assembly sequence of the Purdue Pegboard consist of assembling pins, collars, and washers. Both hands should be operating all the time, one picking up a pin, one a washer, one a collar, and so on. It should be remembered that the score for the assembly test is the number of parts assembled--not the number of complete assemblies.

The scores ranged from 50 to 24 parts placed on the assembly test with a crude mode of 42.5. This showed that the most frequent occurring score of the Assembly test was 42.5 with twenty-one students out of seventy-three falling on the mode. The mean score of the Assembly test was 41.9 parts placed and the median score was 41.6.

Typewriting Speeds

The scores ranged from 63 to 12 words-a-minute on the typewriting speed averages with a crude mode of 41.5. This showed that the most frequent occurring typewriting speed average was 41.5 words-a-minute with ten students out of seventy-three falling on the mode. The mean score of the typewriting speed average was 36.8 words-a-minute and the median score was 36.5.

Two correlations were computed: (1) the R+L+B manipulative dexterity scores and the typewriting speed averages and (2) the Assembly scores and the typewriting speed averages. The Pearson product-moment correlation coefficients revealed r 's of .40 on the R+L+B test and .53 on the Assembly test, both significant at the .05 level.

Summary, Conclusions, and Recommendations

The correlation between the two sets of tests did have substantial relationship to one another. It could be said that the student who scored above or below the 50th percentile for both the R+L+B test and Assembly test would have a typewriting speed average above or below the 50th percentile by the end of the school year.

Within the limits of this study, there was a significant correlation between the students' manipulative dexterity and their typewriting speed. The correlation coefficient of the R+L+B test was .40 and the correlation coefficient of the Assembly test was .53, which was significant at the .05 level. As a result of this

study it was concluded that the assembly test was a better predictor of typewriting speed than was the R+L+B test.

The Purdue Pegboard measures only manipulative dexterity of the hands, arms, and fingers. This study indicated that achievement of typewriting speed demands more than just manipulative dexterity. Therefore, the Purdue Pegboard cannot accurately predict the typewriting success of students but could be used as an indication of possible success.

This study and its findings could be summed up in the same statement Forrester made in 1951, "No one record, no test, and no one measure can give a valid and reliable basis for rating the efficiency or progress of an individual or for appraising his potentialities."

ADMINISTRATIVE PROCEDURES IN DEVELOPING A PROPOSED GROWTH AND DEVELOPMENT PROGRAM

Wagner, Kenneth E.
Ed. Specialist

Emporia Kansas State College
1969

Increasingly, school systems across the country are discussing, endorsing, planning, and initiating programs in sex education. With the influence upon the young people from the mass media such as magazines, radio, movies, and television in addition to the lack of adequate training for sexuality they receive from home and church, it seems necessary for schools to move into this controversial field of sex education. This is not an attempt by the schools to take over this important task of educating the youth for their male or female role in life but its purpose is to supplement what has been given by home and church to help children accept their role in society and be capable of making responsible decisions based upon their understanding of themselves.

Description of the Problem

The Board of Education of Unified School District 490 recommended

to its School Health Advisory Council that a committee be selected to establish the organizational framework for a sex education program for grades kindergarten through twelve.

At the March 19, 1968 meeting of the School Health Advisory Council, an elementary principal was nominated and elected to head the sex education committee.

Purpose of the Study

The purpose of this study was to show recommended administrative procedures to be followed in developing a sex education program as an integral part of the school curriculum.

METHODS AND TECHNIQUES USED IN TEACHING ACCOUNTING IN ADULT EDUCATION PROGRAMS IN KANSAS COMMUNITY JUNIOR COLLEGES AND AREA VOCATIONAL- TECHNICAL SCHOOLS

Watts, Ellen
M. S.

Emporia Kansas State College
1973

The purpose of this study was to determine the methods and techniques used in teaching accounting in the Adult Education Programs in Kansas Community Junior Colleges and Area Vocational-Technical schools. The following specific questions were answered in this study:

1. Which methods and techniques were most frequently used, most effective, and preferred in teaching accounting to adults?
2. What texts, machines, and teaching aids were most frequently used, most effective, and preferred in teaching accounting to adults?
3. What age groups and common educational backgrounds of students were served by these institutions?

4. What reasons were given by adults for enrolling in accounting ?

5. What methods of evaluation were used by instructors in their accounting classes ?

Methods of Procedure

A review of all available literature on adult education and on up-to-date methods and materials used in teaching post-secondary accounting was the first step in this study.

A questionnaire was developed and sent to adult education instructors in the area vocational-technical schools and community junior colleges in Kansas. The data on the questionnaires was tabulated and analyzed from which a summary, conclusions, and recommendations were made.

Summary

The workbook, lecture, and demonstration were the methods and techniques used by the majority of instructors.

The chalkboard and transparencies were the most effective and most widely used aid in presenting course materials.

The ten-key adding machine was used by all of the instructors answering this section of the questionnaire.

The most common course titles were Accounting I and II. Three hours of credit were given by most institutions upon completion of the course. The number of hours in the courses ranged from 45 to 200.

Age levels from 16 to 50 with at least a high school educational background were indicated in the survey. Educational level prior to class enrollment ranged from senior high school to college degree.

The primary reasons for enrolling in accounting classes were job advancement, preparation for initial employment, and personal.

Textbooks published by Southwestern, McGraw-Hill, Irwin, and Prentice-Hall were used by the instructors in this survey.

Percentage points were used as the most common evaluation

procedure in this study. The most common testing procedures indicated were publishers tests and tests compiled by the instructor. About one-fourth of the instructors used no testing in their courses.

Conclusions

1. The use of workbooks corresponding to the accounting textbooks was the most widely used method and one of the most effective methods used in teaching accounting. The lecture and demonstration were the next most widely used and effective techniques used in teaching accounting.

2. The chalkboard was used in almost all of the institutions included in the study as an important aid in teaching accounting. Although the effectiveness of the chalkboard rated slightly below transparencies, all schools should have a chalkboard available at all times in an accounting classroom. Transparencies were the second most important aid used in the accounting classroom.

3. The ten-key adding machine was used in all accounting classrooms where machines were available in the institutions included in this study. This machine as well as the full-key adding machine were ranked as the most effective in teaching accounting.

4. Various titles were used for the accounting classes in the adult education programs of the schools in this study. Accounting I and II were the most common titles used. Also, a varied number of hours and credit hours were given upon completion of the classes.

5. Numerous age levels and a varied educational background of students were evident in this study. Education prior to class enrollment ranged from senior high school to college degree. Age levels ranged from 16 to 50. Job advancement, preparation for initial employment, and personal were the three main reasons given by students for enrolling in the various accounting classes.

6. The textbooks and workbooks of the Southwestern Publishing Company were the most widely used in the accounting classroom.

7. The points system and percentage system of assigning grades were the most used evaluation procedure. Those who gave tests in their classes used published tests more often than self-prepared tests.

Recommendations

As a result of this study the following recommendations are made:

1. Accounting instructors should consider the use of workbooks in conjunction with textbooks in teaching their classes. A more varied use of techniques and methods should be undertaken by each instructor suitable to their particular situation.
2. All accounting classrooms should have a chalkboard available for class use. Materials for making and using transparencies should be made available to all instructors. Instructors should use published aids as well as their own self-constructed aids.
3. All accounting classrooms should have a sufficient number of ten-key adding machines available for student use.
4. The adult education programs in accounting in Kansas should be broadened and expanded to be available to more persons on the basis of age, educational background, and need.

GEOGRAPHIC MIGRATION OF GRADUATES FROM KANSAS
COMMUNITY JUNIOR COLLEGE OFFICE OCCUPATIONS
PROGRAMS AND DISTRIBUTIVE OCCUPATIONS
PROGRAMS FOR 1971

White, Edna M.
M. S.

Emporia Kansas State College
1972

Statement of the Problem

The purpose of this study was to determine whether the graduates of the distributive occupations programs and office occupations programs from the Kansas Community Junior Colleges for the year 1971 were remaining in the geographic area of Kansas after completing their studies.

Procedures

The procedure used was to take information from data collected

during the completion of the Computerized State Wide Follow-Up System. Using a work sheet the graduates home address, present address and school attended were obtained for the distributive occupations programs and the office occupations programs. The totals of the combined programs were found then broken down into number of distributive occupations graduates and office occupations graduates and number of females and males who returned their questionnaires. The same breakdowns were used to find out: (1) those who returned to or migrated from their home communities, (2) those who remained in or migrated from Kansas, and (3) those who stayed in or migrated from a specific type area (rural, urban, metropolitan).

Findings

It was found that there was a total of 795 distributive occupations graduates and office occupations graduates from the 14 of the 19 Kansas community junior colleges chosen by random selection to participate in the State-Wide Follow-Up System.

Of the 795 graduates, 218 were from the distributive occupations programs and 577 were from the office occupations programs. A random sampling was done on 105 of the graduates. Twenty-four from the distributive occupations programs and 81 from the office occupations programs.

Sixty-three questionnaires, or 60 per cent, were returned by 38 females and 25 males. Eleven of the returns were from distributive occupations graduates, four females and seven males. Fifty-two of the returns were from office occupations graduates, 34 females and 18 males.

Fifty-one graduates, or 81 per cent, returned to their home communities. Nine of the graduates, three females and six males, were from the distributive occupations programs and the other 52 graduates, 29 females and 13 males, were from the office occupations programs.

Ten graduates, or 19 per cent, of the 51 graduates came from a rural area. These ten graduates consisted of one female from the distributive occupations programs and nine graduates, eight females and one male, from the office occupations programs.

There were 33 graduates, or 65 per cent, who came from an urban area. Five graduates, one female and four males, were from

the distributive occupations programs and the other 28 graduates, 18 females and ten males, were from the office occupations programs.

There were eight graduates, or 16 per cent, who came from metropolitan areas. Three graduates, one female and two males, were from the distributive occupations programs. The other five, three females and two males, were from the office occupations programs.

There were 12 graduates, or 19 per cent, who migrated from their home community. Two of the graduates, one female and one male, were from the distributive occupations programs and ten graduates, five females and five males, were from the office occupations programs.

There were three males who came from a rural area. Of the three, one from the distributive occupations programs migrated to an urban area. Two were from the office occupations programs, one migrated to another rural area and one migrated to an urban area.

Eight of the graduates, or 13 per cent, were from an urban area. One female from the distributive occupations programs migrated to another urban area. The other seven graduates, four females and three males, were from the office occupations programs. Two graduates one female and one male, migrated to a rural area. Four graduates two females and two males, migrated to another urban area. One graduate, a female, migrated to a metropolitan area.

One female from the office occupations programs, came from and migrated to another metropolitan area.

There were 59 graduates, or 94 per cent, who remained in Kansas. All eleven of the distributive occupations graduates remained in Kansas; and 48, 31 females and 17 males, from the office occupations graduates remained in Kansas.

There was a total of four graduates, three females and one male, who migrated to another state. These four graduates were all from the office occupations programs.

Conclusions

It was concluded that the majority of the graduates of the distributive occupations programs and of the office occupations

programs from the Kansas community junior colleges tend to return to their home communities. Also, the majority of the graduates of these two programs tend to remain in Kansas. It is noted that the majority of the graduates came from and either returned to or migrated to an urban area.

Recommendations

It is recommended that a similar study involving a larger population should be conducted. A more in-depth study needs to be done to discover whether the vocational training in the distributive occupations and the office occupations is influencing the graduates to return to their home communities. A study should be conducted to determine whether age is a factor in the migration of the vocational graduate. A study of the migration of the distributive occupations graduates and the office occupations graduates from the secondary schools in Kansas should be made. A comparison of how migration of the distributive occupations graduates and the office occupations graduates compares to the migration of other vocational occupations graduates and to the non-vocational graduates.

SPECIALIST IN EDUCATION DEGREES EARNED AND THESES WRITTEN IN KANSAS STATE COLLEGES AND UNIVERSITIES

Whiting, W. Clark
Ed. Specialist

Emporia Kansas State College
1971

The awarding of degrees to individuals for outstanding accomplishments or for completion of specified academic requirements has long been a custom in the field of education. That this practice has grown to considerable proportions can be inferred from the facts that in the 1954-1955 academic year a total of 354,000 degrees were conferred, and by the 1967-1968 term this had increased to 871,832.

There has been a corresponding increase in the types of academic degrees from which to choose, with more than 1,600 separate categories being awarded by the colleges and universities in the United States in a recent year.

The master's and doctor's degrees have long been established as goals for the graduate student. The Specialist in Education degree, however, is a relatively new development, and its position in the educational spectrum has not been firmly established. Only a limited amount of information has been available to anyone attempting to formulate an opinion of its importance as a graduate degree in Kansas.

The primary concern of this study was to add to the body of information about the most recent graduate degree in Kansas.

Purpose of the Investigation

It was the purpose of this investigation to study some of the major aspects of Specialist in Education degrees as offered by the colleges and universities in the state of Kansas. One of these aspects was concerned with the method of research which was used by the candidate in preparation of the major written requirement for the degree. A second was to compile a numerical analysis of the utilization of the degree by the graduate students in those institutions. The third aspect dealt with the initiation of the degree in Kansas.

Importance of the Study

Due to the fact that the Specialist in Education Degree has been incorporated in Kansas institutions of higher learning for only a few years, data have been available only in isolated or incomplete form. Answers to the questions posed might provide information for a quantitative evaluation of this particular graduate program. Prospective applicants might inform themselves as to the methods and techniques of research which have been utilized in the preparation of studies made for the program, in addition to the subjects and problems which have been researched.

Conclusions

If the increase in the total number of the Specialist in Education degrees being awarded in Kansas schools can be assumed to be an indicator, the degree is finding some acceptance as a graduate award among those deserving to obtain a higher degree. The total annual increase from the original two in 1959 to sixty-three in 1969, would give proof that it is being increasingly utilized by the students and the institutions. However, this statistic seems less significant when compared with the 3,153 total of graduate degrees awarded in Kansas during the 1967-68 academic year alone. In addition, one institution

has eliminated the program entirely. The conclusion, based on these statistics, is that the degree is being utilized, that the acceleration is very modest, and the prognosis uncertain.

It is evident from the statistics that the far greater percentage of studies was done in the field of Education or closely related areas. In some of the institutions, it was the lone field for which research projects had been prepared. This study was not designed to elicit the reasons for this, and it is recommended that further investigations be made to determine why the degree is not emphasized in other fields. Related studies could be made to ascertain the reasons for the emphasis, or lack of emphasis, at each of the institutions to encourage their students to become candidates for the Specialist degree.

The descriptive method was the most popular type of research for the specific group of theses included in this study. Tentative conclusions might be drawn that this method lends itself best to research in education and related fields or is more convenient for the student. However, the population was too limited in scope to justify a strong defense of these positions. The fact that thirty-five of the forty-three experimental studies were done in a classroom situation indicates that there was some action research taking place in the schools of Kansas.

The inclusion of a numerical summary of the research instruments and techniques in this study was based on the premise that it would be of value to prospective degree candidates to know which had been utilized by other students. The questionnaire was the statistical leader but no effort was made to determine why it was chosen most often or whether it was the best instrument available to those who did choose it. It is recommended that further studies be made to gather more information for these questions.

The two categories of research, quantitative and qualitative, were enumerated and included for the same reasons advanced for including research methods. Reporting results in a quantitative manner held such a numerical advantage that it would appear to be the superior of the two. However, it was concluded, for reasons not substantiated in this study, that the research category is more often dictated by the method and topic chosen than by the personal preference of the researcher.

One further recommendation is made that the graduate departments and schools communicate with the institutional libraries for

the purpose of improving the cataloging and indexing of theses presented on the Specialist in Education level. At one of the institutions none of the professional staff present were aware that such a degree existed, and none of the theses were cataloged to indicate that they were presented for the Specialist degree, although those on the master's and doctoral level were so identified.

Another of the libraries did have a file on the Specialist degree theses, but it contained some listings dating back to 1924, while failing to have a complete list for recent years. The status of the Specialist in Education degree might be enhanced if such conditions were corrected.

A FOLLOW-UP STUDY OF THE GRADUATES OF MEADE HIGH SCHOOL CLASSES OF 1960 TO 1964

Wiens, Waldo K.
Ed. Specialist

Emporia Kansas State College
1969

Statement of the Problem

This research, A Follow-Up Study of the Graduates of Meade High School Classes of 1960 to 1964, was a study to determine the post-graduation activities of the 1960-1964 graduates of Meade High School with emphasis on five general areas of investigation: (1) the occupational opportunities and pursuits of the graduates; (2) the number and percentage of graduates who continued their formal education in institutions of higher learning; (3) the number and percentage of graduates who took vocational training after graduation; (4) the extent to which curricular offerings have met the needs and demands of graduates of recent years; and (5) the present location and occupational status of the graduates.

Summary of Findings

This follow-up study was concerned with the 1960-1964 graduates of Meade High School. The current information was obtained on 143

of the 147 graduates. Three graduates were deceased and one could not be located.

The graduates of the period under consideration were located in 23 states and 4 foreign countries. Twenty, or 13.61 per cent, of the graduates had remained in Meade County. Fifty, or about 35 per cent, of the graduates were living in Kansas. California ranked second to Kansas with 15 graduates. Colorado and Oklahoma each had nine.

It was found that 68 of the 77 female graduates were married. Of this number, 26 were gainfully employed outside the home. Forty-one of the married females that were unemployed were housewives. One married female was unemployed and seeking work. In the fall of 1968, over one-third of the female graduates were married and employed, which confirms the fact that a high percentage of women will work outside the home at some time after marriage.

More girls than boys were married. Of the girls, 88.31 per cent were married, compared to 63.63 per cent of the boys. Twenty-three of 66 boys were still single, and one was divorced. A total of 110 of 143 graduates, or 76.92 per cent, were married.

It was discovered that 90 or 62.94 per cent of the graduates had attended college. A higher per cent of female subjects attended college than did males, with a percentage of 54.44 and 45.56 respectively. Wichita State University and Kansas State University had enrolled the largest number of graduates, with 12 each. Pittsburg State Teachers, Fort Hays State and Southwestern College each had ten graduates; Dodge City Junior College and University of Kansas each had nine.

The ninety graduates attended fifty-seven different colleges and universities, and 41 of these schools were outside the state of Kansas. The eight schools with the highest attendance of the 1960-1964 graduates are located in Kansas. Thirty, or 52.63 per cent, of the schools were public four-year colleges or universities; 26.32 per cent were private four-year colleges or universities; 15.79 per cent were public two-year colleges; and 5.26 per cent were private two-year colleges.

A large diversity was noted in the major field of study indicated by the graduates, with business being mentioned the greatest number of times, with 11 responses, or 12.22 per cent. Forty different majors were selected by the 90 graduates who enrolled in college.

The graduates were ranked by ability, and 66.66 per cent of the graduates in the upper third entered college, while 54.17 per cent in the lower third entered college. There was a marked difference in the per cent of graduates withdrawn from college, with 28.13 per cent in the upper third compared to 76.92 per cent withdrawn in the lower third. Twenty-three out of 32 graduates in the upper third, who entered college, continued past the fifth semester, while only six out of 26 in the lower third continued past the fifth semester. The evidence supports a premise already well established: the capacity to comprehend quickly is a valuable asset in preventing college drop-outs.

The graduates were also ranked by the grades they made in high school. Forty-two, or 87.50 per cent, of the graduates in the upper third entered college, while 17, or 35.48 per cent, in the lower third entered college. Twenty-eight of 48 graduates in the upper third by grades continued past the fifth semester, while only five of 48 graduates in the lower third continued past the fifth semester. This study shows that there is a definite and strong association between ability measure and grade point average in relation to college drop-outs. The number of drop-outs was high among those students who ranked in the lower third, while drop-outs remained comparatively low for students in the upper third of their class.

The greatest number of college student transfers, 26, were made from a four-year college to another four-year college. This seems reasonable, since 78.95 per cent of the colleges attended by the 90 graduates were four-year college or university type schools. There were 16 transfers one year after graduation, 16 transfers two years after graduation, and ten transfers three years after graduation.

Thirty-one graduates, 20 females and 11 males, entered some type of training other than college. Business school was most popular, with 33.48 per cent. The graduates entered eight different types of training in 22 different trade schools. Eleven of these schools were located in Kansas, three in Colorado, two in Oklahoma and Missouri. Wichita Business College had the largest number of graduates, with six, Salt City Business College, four, and Wesley School of Nursing, three.

A total of 109, or 76.29 per cent of the 143 graduates, continued their education in some type of college, trade or technical school. Thirty-four of the 143 graduates, 18 males and 16 females, did not enter higher education after high school.

The graduates who ranked high scholastically are much more likely to continue their education after high school. Only two of 48 graduates in the upper third, by class rank, did not complete any higher education, while 22 of 48 in the lower third terminated their education after graduation.

Thirty-four of 90 graduates who entered college received a Bachelors degree. Five of the females who entered nurses' training received their Registered Nurse degree and one received a Practical Nurse degree. Another female received both a Bachelors and Registered Nurse degree. Six graduates received diplomas in business school, and five in trade schools. There were five Masters Degrees and three diplomas from a two-year college.

Seventy of 143 graduates were employed in the fall of 1968. Education had the largest number of the graduates who were employed, with 14, or 20 per cent, the petroleum industry had ten, or 14.29 per cent, and the medical field had nine, or 12.86 per cent. Of the 70 graduates employed, 38 were males and 32 were females.

In the fall of 1968, the female graduates were employed in 25 different occupations. Forty-one, or 52.25 per cent, were housewives, and teaching showed the second largest number with 11.

The male graduates, in the fall of 1968, were in 33 different occupations. Twenty-two, or 33.33 per cent, of the males were engaged in military service only, followed by six college students, or 9.09 per cent, and five farmers, or 7.85 per cent.

Of the 47 graduates who had entered a college or university but had not continued past the fifth semester, 17, or 36.17 per cent, were occupied as housewives, and eight, or 17.02 per cent, entered military service. It is reasonable to assume that several of the 47 graduates may continue their education at a later time.

The female graduates had a tendency to change jobs more often than males. The females indicated 114 reasons for job changes, compared to 67 reasons by males. The four reasons for job changes that were mentioned by females most often included moving, 34 times; entering school, 21; marriage, 15; and starting a family, ten. The three most frequent reasons for males included military service, 16 times; entering school, 15; and higher wages, 13.

In the fall of 1968, forty of 66 male graduates were found to have had some military service. Of these forty, 14 had completed

their military obligations and had been released from the service.

Both male and female graduates felt that English had been of the most value to them. Mathematics was rated second for the males, and typing second for the females. The females listed a total of 23 different subjects as being most valuable, compared to 24 different subjects listed by the males.

The courses listed the greatest number of times by both males and females as being of least value in relation to the graduates' social life, school and occupational setting were American history, first, and biology, second. American history is required at Meade High. Both males and females listed 29 different subjects as being least valuable to them. Several male and female graduates indicated that, if they had been more interested at the time the subjects were offered, the subjects would have been more valuable to them.

There was a definite relationship between the subject that had been most valuable and responses indicating the highest strong point of the program. The English department was listed most often and received the most praise. The music department rated second as being a strong point in the high school program.

The mathematics, foreign language and business departments were the areas mentioned most frequently as being weak in the program at Meade High School. Several of the graduates who entered jobs and those who entered higher education after high school indicated that more courses should be offered in mathematics, foreign language and business. Many of the graduates who had not entered college indicated that there were too few vocational courses to help them prepare for full time employment. They felt there was not enough emphasis placed on helping them prepare for employment after graduation. A total of 32 different weak points, compared to 24 different strong points, were listed by the 1960-64 graduates.

The subjects that the graduates now realized they had a need for and wished they had taken seem directly related to the occupation entered by each one after graduation. Shorthand and bookkeeping, rated first and second respectively, were mentioned most often. Senior math was rated highest by the males, but for a while it was scheduled against senior English.

The foreign language department showed the greatest weakness in courses now desired by the graduates but not offered by the school.

Seventy-nine graduates indicated a desire to take a foreign language course not offered by the school. Art was recommended strongly by several students and additional courses in mathematics and business were often mentioned by the graduates.

Forty-five suggestions were made by the graduates for the improvement of the program at Meade High School. The graduates felt that there was a need for a better guidance program with all phases of guidance mentioned. They suggested that they needed help in selecting life goals, in planning a background for college and employment, in selecting a college program and in selecting a vocation, as well as help with personal problems.

They suggested a wider variety of courses to choose from, better qualified teachers, harder assignments with more homework, better student-teacher-parent relations, more writing and research assignments, discipline to help develop study habits, more permissiveness on the part of students, and improvement of departments.

Several students felt they had not been adequately prepared for anything. A majority of students found much less fault except for a general feeling of everything being too easy and not enough required of them. Many graduates expressed their appreciation for being able to express their feelings for improving the educational program of Meade High School.

Recommendations

This study was designed to provide specific information concerning the activities of graduates of Meade High School. These data have developed an awareness of areas that need further attention. On the basis of these data, the following recommendations are made:

1. Use the information in this study to help in curriculum planning.
2. Develop the guidance program in the school.
3. Add some more terminal vocational education courses for those not planning further education. Explore the possibility of enlarging some of the present vocational courses.
4. Check with organizations and industry in the area about the possibility of establishing additional scholarship funds.

5. Offer a foreign language besides Spanish or Latin such as either German or French.
6. Establish an art department.
7. Start a follow-up study in the 1969-70 school year on the class of 1969.
8. Enrich the college preparatory areas with a few additional courses as needed.
9. Expand the placement services of the school to help more students and graduates in part-time and full-time jobs.
10. Maintain close contact with the colleges where the majority of the graduates attend.
11. Conduct a similar follow-up survey of students who dropped out of high school to see what they are doing.
12. Conduct a survey of the community to help keep up with the opportunities and needs of the area.
13. Cooperate in helping the public junior colleges expand in the area.
14. Continue to explore the opportunities and services of the area vocational school.
15. Make more information available concerning the opportunities in the military services.
16. Do a similar follow-up study of the 1965-1969 graduates during the 1973-1974 school year.

FORT HAYS KANSAS STATE COLLEGE
Hays, Kansas

A STUDY OF MARKETING MANAGEMENT TRAINING PROGRAMS
USED BY OIL COMPANIES INTERVIEWING AT FORT
HAYS KANSAS STATE COLLEGE DURING
THE 1967-68 SCHOOL YEAR

Austin, Max Jay
M. S.

Fort Hays Kansas State College
1969

The problem and purpose of this study was to examine the marketing management training programs of eight oil companies and find if these programs contained the types of training thought to be most needed in the area of marketing and sales management. These needs include training and development in management principles, marketing and communications techniques, leadership qualities, and development of self and others. A model program was constructed to include these training needs.

The company programs, as given in literature supplied by these same companies, were examined and compared to the model program. Five of the eight company programs studied did not meet the requirements of the model. It was pointed out where the programs met requirements and where they were found lacking.

The eight companies included in this study represent the oil companies that held interviews at the Fort Hays Kansas State College campus during the 1967-1968 school year.

The information for this study was gathered from available texts and periodicals, and from unpublished correspondent material supplied by the eight oil companies studied.

Most of the problems associated with the selection of training methods and techniques can be directly tied to the lack of adequate knowledge caused by too little and poorly done research. The

contention can be supported by the fact that only three of the eight company programs studied conformed to the requirements of the model program. These requirements are felt to be essential in the construction of marketing and sales management training and development programs.

Of the eight oil companies covered, six of them have formalized training programs. The formal program affords the trainee a training process through some form of scheduled or planned on-the-job work. In these positions, the trainee is coached and guided by the managers or executives of the section.

The informal training program does not operate under a scheduled or planned routine and does not give the trainee the opportunity of being coached and guided by the managers or executives. He is usually instructed by a fellow worker or learns by himself, by the "trial and error" or "sink or swim" methods.

Four of the companies use training in a service station as one phase of their programs. They believe that this will give the trainee insight into the services and products he will be marketing. The trainee is also in a position to observe the principles of managing a retail outlet. The companies that use this type of training are Gulf, Mobil, Phillips, and Standard. This type of training could be interpreted to parallel the model requirements of a means of teaching management principles and marketing techniques.

All of the companies, excluding Texaco, use some form of conference program or classroom instruction as a part of their training. During these sessions, the trainees may be instructed in the history of the company, its purposes and policies, products, sales techniques, management concepts, and its attitudes toward customers, employees, consumers, and other groups. This phase of training could be used to meet the model requirements of training in management principles, marketing and communications techniques, and development of others.

The programs of Chevron, Gulf, Mobil, Phillips, Texaco and Standard are geared toward marketing. Cities Service's program is for marketing and other administrative positions. Continental Pipe Line's program is for administrative and management positions.

The lengths of the company programs are far from equal. They range from three months to thirteen and one-half months in length.

No connection can be drawn between the lengths of the programs

and what they contain. Examples to support this statement can be shown by comparison of the programs of Mobil, Phillips, and Standard. Each program is approximately seven months in length. The Mobil and Standard programs meet the requirements of the model. Their programs provide training in management principles, marketing and communications techniques, development of leadership qualities, and development of self and others. They are both heavy in marketing and management, enough so as to surpass the model requirements in those areas. Phillips' program is found to be lacking in three of the four model requirements: management training, development of self and others, and development of leadership qualities.

The programs of Chevron and Mobil, by examination, are comparable to each other in content and quality, yet Chevron's is six and one-half months longer than Mobil's program.

Other recommended areas of study that pertain to this topic are studies of training programs of other segments of industry, such as insurance, retail chain store companies, and consumer product manufacturers.

A study of company training programs as a fringe benefit in attracting college graduates is also a recommended area of study.

A study to determine the quality of a company training program with respect to the employee retention ratio is recommended. Additional research is suggested in the areas of the promotability of the candidates, and their job satisfaction after completion of the program.

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THE HISTORY OF THE DEVELOPMENT
OF AEROSPACE EDUCATION
IN THE UNITED STATES

Blackhall, Alyce L.
M. S.

Fort Hays Kansas State College
1971

Because the development of aerospace education in each of the states has not been uniform, comparison between programs in the various states is nearly impossible. The leader in aerospace education efforts has been California. The State Department of Education approved the development of programs in 1945. In 1946 a Bureau of Aviation Education was selected by the California State personnel board. Aviation education was assisted in high schools and junior colleges. Aviation education was included in many courses of study throughout the high schools in California. It was recognized that all of the people involved in some facets of aviation would not be the boys of higher abilities, but people with all ability levels would be involved in aviation. After World War II war surplus materials were donated to the schools so that they no longer faced the shortages which curtailed classroom operation.

The objectives and goals of public education which aviation education served included intellectual development, creativity, values, civic responsibility, economic competency, human relations, health and leisure. Units of study were developed for students in elementary schools to provide interest, meaning, opportunities to learn through experiences, and for evaluation. The junior high school level curriculum was planned as a study of vocational opportunities available in aviation and in scientific work which was considered related to aviation. High school units of study were designed to provide knowledge of history of flight, the growth of aviation as a means of transportation, and an understanding of terrestrial and spatial geography and its relation to the problems of the world.

Second in the nation in number of aviation programs in its high schools and colleges has been the State of Kansas. The objectives of the Kansas Commission on Aviation have changed little in its 25 years of existence. Its initial objectives and purposes were to promote and correlate aviation education in the schools, colleges, and universities in Kansas.

A STUDY OF THE FRY AND DALE-CHALL READABILITY
FORMULAS APPLIED TO OCCUPATIONAL INFORMATION

Callison, Rebekah L.
Ed. Specialist

Fort Hays Kansas State College
1975

The purpose of this study was to investigate the readability level of a sampling of materials from the Occupational Outlook Handbook, the Occupational Brief, the Coping With Series, and to compare the Dale-Chall and Fry Readability Formulas for readability levels on these selected materials.

The Occupational Outlook Handbook and Occupational Brief are used by counselors and teachers in many high schools to aid students in finding information about careers and the selection of careers. Because these materials are used by school counselors and teachers, it was felt that there was a need for a fast and reliable method to determine the readability level of these occupational materials.

It was found, by both the Dale-Chall and Fry Readability Formulas, that the readability levels for the career samples studied in the Occupational Outlook Handbook were at the college level with some at upper college or college graduate level. In the samples studied in the Occupational Brief, most of the careers selected, readability levels were at the upper college or college graduate levels.

It was found, by both the Dale-Chall and Fry Readability Formulas, that the readability levels for the samples studied in the Coping With Series was between 6th and 10th grade.

By using the t-test for related samples, the results of the comparability of the two formulas applied to the sampling of occupational materials selected from the Occupational Outlook Handbook and Occupational Brief was found to be insignificant. The results of the t-test for related samples as applied to the sampling of materials from the Coping With Series was also found to be insignificant. The comparison between the Dale-Chall and Fry Readability Formulas on the selected samples was found to be highly comparable.

Conclusions

On the samples studied in the Occupational Outlook Handbook and Occupational Brief, one may conclude that the readability levels were too high for the average high school student's reading ability.

On the samples studied from the Coping With Series, one may conclude that the readability levels were appropriate for the intended readers.

The conclusions are that these of the Fry Formula not only would save valuable time for the counselors and teachers, but it is also highly reliable on these materials.

A STUDY TO DETERMINE THE NEED FOR A WORK-STUDY PROGRAM IN THE HAYS, KANSAS, SENIOR HIGH SCHOOL

Cottingham, Darrell Lee
Ed. Specialist

Fort Hays Kansas State College
1968

Individual interviews were held with the two hundred and twenty-one members of the class of 1969 and the one hundred and sixty-nine members of the class of 1968, in order to determine the student interest in a work-study program for the Hays, Kansas, Senior High School. If it was determined, through the individual interview held with each student, that the student was going on to college, the work-study program was not discussed with him. Of the combined total of four hundred and nine students, interviewed, one hundred and sixty-three students indicated that they were not planning going on to college. Ninety-three of these students indicated an interest in the work-study program, seventy of whom tentatively enrolled in the course. No attempt was made to define the required courses that would be taken by the students participating in the program. The students were told that in addition to the regular required courses of high school graduation, they would be required to take a two-hour block of time in related work-study courses at each of the eleventh and twelfth grades during the morning hours and would be released to work in the community during the afternoon hours. Twenty-seven per cent of the students in the Hays

Senior High School that were interviewed, thus showed an interest in the work-study program with nineteen per cent actually tentatively enrolling in the course of study. Thus, nineteen per cent of the present student body of the Senior High School feel a need for an interest in a work-study program. This figure compares favorably with the nationwide average of fifteen per cent of the student body being enrolled in the work-study programs of those comprehensive high schools that offer such a program.

Ninety-three per cent of the faculty members of the Hays Senior High School indicated a need for a work-program in the high school. If any addition to the curriculum is to be successful, it must have the support of the faculty. With ninety-three per cent of the faculty members feeling the need for such a program, it is felt that these same faculty members will cooperate with the program and work to make it an integral part of the total curriculum.

Four hundred and five Hays business men were surveyed in order to determine the community need and support for a work-study program. Only eighty-two responses were received to our questionnaire. While the failure to respond may be regarded as a negative response, there is no definite way to determine whether they felt that the school did not need a work-study program. The fact that eighty-seven per cent of those who did respond did indicate a need for a work-program and the further fact that seventy per cent of those who responded affirmatively indicated that they would hire a student indicates sufficient community support to develop such a program.

The conclusion reached is that sufficient need and interest has been shown to warrant the inclusion of a work-study program in the curriculum of the Hays, Kansas, Senior High School. It is the further conclusion of the author that the curriculum that focuses on meeting the imperative needs of all youth, the curriculum that seeks to recognize positive approaches to juvenile delinquency and school dropout reductions, includes work-study programs as a part of curriculum.

EFFECTS OF TRAINING AND TOKEN REINFORCEMENT ON
COOPERATIVE BEHAVIORS WITH PROFOUNDLY
AND SEVERELY RETARDED ADULT SUBJECTS

Dreiling, Charlene A.
M. S.

Fort Hays Kansas State College
1973

This pilot study investigated the effect of group training within a token economy system on cooperative behavior in severely and profoundly retarded institutionalized adults.

Vineland Social Maturity Scale scores were used to choose eight ward residents who were subsequently assigned to four-member training groups. Group cooperative behavior was defined as passing an object, lifting an object, and group assembling.

Frequency of cooperative behaviors reaching the defined criterion generally increased in response to the training-token reinforcement learning combination. Implications of the results obtained in this pilot study appear to indicate this combination may be effective in training heretofore untried tasks with profoundly and severely retarded subjects.

This pilot study attempted to investigate if severely and profoundly retarded adults could exhibit cooperative behaviors in response to training and token reinforcement. Successful training of cooperative behavior in these subjects expands the possibility of training other behaviors heretofore believed not possible. Simple routine ward tasks, staff assistance, and a resident buddy system for helping behaviors are a few of the possibilities. It is felt that the results of the study do allow that eventuality.

As training in cooperation for the various tasks progressed the subjects in this study were observed to exhibit other cooperations. Periodically they were observed opening doors for other subjects or staff, helping a friend (group member) out of a chair or getting a chair for him, going hand in hand by pairs to the ward exit door as training time approached, and various other emerging cooperations. The subjects appeared to know which of the other ward residents were also subjects and provided them with differential favors.

The failure of the Blue group in Experiment II to reach the

criterion for that cooperative task is believed to be attributable to their inability to coordinate movements so that the box remained level and maintained the balance of the cup placed upon it. The members of this group were responding together or cooperating but their individual coordination differences appeared to interfere with the successful completion of this task. Training should have followed a chaining technique and would have presented an opportunity for coordinating certain operants or parts of the total response.

Chaining for this task, for example, could have followed a backward chaining procedure using three steps. The group could have been reinforced at first simply for taking hold of the ropes while the box was slightly suspended in the air and the group then gently lowered it to the desk. Secondly, the group could be trained and reinforced for holding the box off the desk and walking with it while keeping it level. Then the training would finally take the last step of the backward chain (or the first step of the task) and reinforce for lifting the box off the desk while keeping it level. Kinesthetic clues received by each subject may be an important variable in this task and reinforcement for the appropriate movements in the chain may be necessary.

Training for Experiment III, the group assembling for meals, would probably have progressed much more quickly had the large footprints been used as discriminative stimuli at the beginning of training. It appeared much easier for the subjects to step on a discriminative stimulus (footprints) than to avoid stepping on one (taped lines).

Coincident with the training for Experiment III the ward staff were assisted in training the remaining twenty-three residents to get in line for the reception of meal trays. Instead of the confusion that existed on the first day of the experiments, orderliness on the ward at tray time increased remarkably by the last experimental day.

Part of this pilot study concerned the efficiency and effectiveness of the token economy upon the profoundly and severely retarded. Although the token economy in this study was a miniature system including only food treats, refreshments, meals, and admittance to the recreation room, token reinforcers do appear to be an effective short term bridge to the back-up reinforcers. Only short delaying time periods were attempted in this study. Twice a day, starting the third week, one token was saved for one to one and one-half hours by each member and used to purchase a meal. It is felt, however,

that none of the subjects recognized the contingency since they were simultaneously being trained to stand in line to receive meal trays and were also receiving tokens for that response. More careful arrangement of the contingencies in another study would be necessary before tentative conclusions can be drawn about length of delay for which tokens are effective for these subjects. All but one of the subjects did however retain the token on his belt hook for the one and one-half hour maximum delaying period. Each of them appeared to wear the token as a badge of honor.

It was somewhat surprising to note the ease of acquisition and persistence of the competing response patterns observed during training. It is suggested that immediate extinction of the competing pattern by careful training and reinforcement of the correct response be attempted when the competing response appears.

It is felt that small group training and group token reinforcement is an effective combination for use with profoundly and severely retarded subjects. Institutionalization often limits the stimuli available to these subjects with a resulting lowered level of desirable behaviors emitted. Using tokens as extrinsic incentives in institutional reinforcement programs may lead to the initiative, involvement and active participation that Bandura (1969) previously discussed.

Although the cooperative social skills trained in this study were simple basic tasks further investigation of more complex cooperative or other social skills training with low-level retardates appears warranted. Implications for the training-token reinforcement learning combination with these subjects appears very promising.

A COMPARATIVE STUDY OF THE BUSINESS DEPARTMENTS OF
KANSAS AND OKLAHOMA JUNIOR COLLEGES

Fine, Kenneth Alan
M. S.

Fort Hays Kansas State College
1971

The purpose for which this study was designed was to present a useful aid to those prospective business teachers who would be considering a teaching position at a Kansas or Oklahoma Junior College. It was the intent of the study to give needed information in the areas which were directly related to the business teacher.

With this purpose in mind, the study was then refined to explore the areas of school administration, available facilities, student bodies, business curriculums, and faculty composition.

By supplying pertinent information to the prospective business teacher about each of these areas, it was felt that the study would be a useful tool to the individual considering a Kansas or Oklahoma junior college teaching position.

The writer feels that sufficient information about the areas relating to the junior college business teacher at a Kansas or Oklahoma junior college has been uncovered by the study and recorded in such a way as to accomplish the purpose for which the study was intended.

Many comparisons have been made in compiling this study, all of which were designed to give the prospective teacher an idea as to what he can expect to find in either the Kansas or Oklahoma junior college business departments. It shows the type of administration the instructor will work under, the students he will instruct, the facilities he will have available to him, the courses he might teach, and the faculty members he will work with. Although the above is the main purpose of this study, it could also be helpful to those persons wishing to take business and/or related courses in a junior college in Kansas or Oklahoma.

To compile the findings of this study, questionnaires were sent to the registrar and the chairman of the business department of each school. (A sample questionnaire can be found in the appendix). Also, experts in the fields of business, junior college administration, business

education, and education were used as references to substantiate the findings of this study.

The study began with an examination of the student bodies of the Kansas and Oklahoma junior colleges. This was done because a majority of the students at these schools would at some time be enrolled in a business course. Both Kansas and Oklahoma junior colleges make use of the open-door admission policy. The use of such a policy is recommended, and both states show that their students exceed the national figures on the percentage of junior college students who continue their formal education. Oklahoma junior colleges showed a slightly higher percentage of 59 per cent as opposed to Kansas junior colleges' percentage of 56 per cent. The main difference between Kansas and Oklahoma junior colleges in student selection is that the Oklahoma junior colleges make more use of established and recommended standardized testing.

The next area of comparison used was that of the administrations of the schools selected for this study. This area was used because the administration affects the running of every aspect of the college. The administrations of all selected schools in both the states of Oklahoma and Kansas are the recommended independent boards set up solely for the running of the college.

The business departments of the Oklahoma schools appear to have superior facilities to those of the Kansas junior colleges. In addition, the Oklahoma junior colleges give the observer the impression of similarity to one another, while no less similarity exists between the Kansas junior colleges. This may relate to the fact that the selected schools from Oklahoma reported they were accountable to the state board of regents.

The third area of comparison was that of the faculties of the business departments of the Kansas and Oklahoma junior colleges. A comparison of both academic achievement and years of teaching experience showed that both the Kansas and Oklahoma junior colleges had staffs which were almost identical to one another. The teaching loads of the business departments were examined, and there were found to be below the average for the business field in both the Kansas and Oklahoma junior colleges.

The final comparison made was that of the business curriculum in the Oklahoma and Kansas junior colleges. In this area both Kansas and Oklahoma junior colleges had many deficiencies although they did

exceed the curriculum guide in some course offerings. The Oklahoma schools fared better than the Kansas schools by being deficient less times and exceeding the guide more times in relation to actual courses offered. The Kansas schools are more aware of the need to add courses and eliminate areas of deficiency.

In summation, it can be said that both Kansas and Oklahoma have junior college business departments which in many areas are superior and do exceed national averages and recommendations. The number of students in both states who continue on to a four year school is very high. The faculties of the business departments in both states show acceptable qualifications and are very similar to one another. As of the present, Oklahoma junior college business departments do have more facilities available and offer a wider course of study than do the Kansas junior colleges in the field of business. This does not mean that Kansas junior colleges are not aware of their needs nor opposed to change.

THE EDWARDS PERSONAL PREFERENCE SCHEDULE AND McCLELLAND'S PROJECTIVE SCALE AS MEASURES OF THE NEED FOR ACHIEVEMENT

Helfrich, Catherine DeVoge
M. S.

Fort Hays Kansas State College
1969

Thirty-nine males and forty-six females were administered the EPPS, cards 1, 2, and 8 BM of Murray's Thematic Apperception Test, and card 6 of the Michigan Picture Test. When the results from the testing were obtained, male and female groups were divided into those showing the presence of the fear of failure motive and those not showing it. These scores were then correlated with each other and with the cumulative and final exam grades. The females showed higher final exam scores in the n Ach-f. failure group; higher n Ach in the group which had the presence of f. failure; and a significant correlation between their EPPS ach scores and final exam scores. The combined male and female groups showed higher final exam scores in the n Ach-f. failure group as opposed to the n Ach-no f. failure group.

There have been in the past two very significant articles written concerning the construct validity of the EPPS n Ach score. According to the observation and speculation of Atkinson and Litwin (1960) using male subjects, the EPPS n Ach would be thought to actually be measuring fear of failure. The results obtained in the present study seem to contradict that speculation since females had a significant correlation between their EPPS ach and final exam scores. A correlation between the EPPS n Ach and the n Ach-f. failure scores was not found for either the males, females, or combined groups.

It appears that, in this case, the final exam situation aroused more the achievement group without the motive f. failure present and also those scoring higher on the EPPS n Ach since for the combined group there was a significantly better performance measured by these groups.

Atkinson and Litwin, using male subjects found that those scoring high on n Ach had significantly higher final exam grades than those scoring lower. This results in a contradiction to the male data in the present study and may possibly be explained by the fact that a different test of n Ach (French Insight Test) was used and, although this test is reported to have a high intercorrelation with the TAT n Ach, it may be that it discriminates more those stories containing the motive fear of failure; or it may have happened by chance that there were significantly more of those not having the fear of failure motive present in their high n Ach group.

The other significant research (deCharms et al, 1955) investigated the idea that there may have been two modes of the achievement motive available for testing, n Ach and v Ach, which deCharms illustrated convincingly in his reported research.

There would be strong support from deCharms for considering that the EPPS n Ach score is actually a measure of v Achievement or a motive which has been learned and is at a more conscious level. We would have expected exactly the results which were obtained on the basis of his research since the final exam is a competitive situation and may measure sway of opinion in the direction of an expert. The question now arises: are v Ach and hope of success the same thing or are they different but highly correlated measures?

Interestingly, males scoring higher on EPPS in Ach did not have the significantly higher final exam scores. It is also noteworthy that, unlike females, the males showed no significant difference in their TAT n Ach scores between f. fail and no f. fail groups. It would

seem, therefore, that the achievement motive may be of a different dimension for males than for females. It is also possible that the present sample could have been more highly saturated with males high in v Achievement.

At any rate, it would seem that a most responsible future research would be one in which a more refined measure of f. failure and hope of success is taken into account in the correlation of n Ach with the EPPS ach score.

A STUDY OF A TREATMENT ORIENTED
RESIDENTIAL CENTER FOR
SOCIALLY MALADJUSTED
MALE ADOLESCENTS

Hufford, Donald E.
M. S.

Fort Hays Kansas State College
1971

The paper contains the results of a study of a church related, treatment oriented, residential center for socially maladjusted male adolescents located at Dodge City, Kansas. The study involved an evaluation of educational, psychological, psychiatric, and sociological factors pertaining to 126 boys who had been served by the agency during the period 1960 through 1970.

The study was conceived, designed, and implemented to relate to treatment theories and modalities appropriate to the residential treatment of adolescents with social maladjustment problems. It included the results of original research regarding the Dodge City program blended with concepts and ideas derived from the reading and analysis of published literature in the field.

A STUDY OF PRIORITIES OF COMPETENCIES OF THE
EDUCATIONAL ADMINISTRATOR IN KANSAS AS PERCEIVED BY
LOCAL TEACHERS ASSOCIATION PRESIDENTS

Keller, Roy David
Ed. Specialist

Fort Hays Kansas State College
1974

The primary purpose of this study was to investigate the perceptions of a random sample of local teachers association presidents in selected unified school districts in Kansas relative to the priorities of competencies in educational administration which they believe superintendents should possess. A secondary purpose was to investigate the relationship between these perceptions and the various characteristics of educational administrators according to age, teaching experience, student enrollment, education and sex.

A related purpose was to make a comparison of this study with studies made by Harvey S. Loy titled, "A Study of Priorities of Competencies in Educational Administration as Perceived by Randomly Selected Superintendents of Unified School Districts in Kansas," and by Dorrell George titled, "A Study of the Priority of Selecting and Evaluating a Superintendent as Perceived by Presidents of Unified School Districts in Kansas."

A set of sixty administrative behavioral statements was developed and administered to a random sample of local teachers association presidents of unified school districts in Kansas using the Q-Sort Methodology. Rank order value judgements were required by the participants; there were no right or wrong responses. The perceptions of thirty-four local teachers association presidents, 12.1 per cent of the population of local teachers association presidents in Kansas, were utilized in this study.

The mean score for each statement, the rank order of the statement, and the frequency of the value weightings of the participants for each statement were determined for the total sample and for each set of subgroups--age, teaching experience, total district enrollment education, and sex. A relative worth of high importance, average importance, or low importance was attached to each behavioral statement on the basis of mean score rank.

Analysis was made of the most important and the least important behaviors as noted by the total sample and by each set of sub-groups. Analysis of the responses to the high priority and low priority behaviors as discerned by the total sample revealed that a high percentage of the respondents were in close agreement.

In the analysis of the sub-group perceptions, noticeable variations within the sub-groups were observed in the perceptions to certain statements. From the computed values of the sixty behavioral statements, a difference of more than 100 in the mean score occurred in perceptions to forty-six statements within the age sub-group, to thirty-one statements within the teaching experience sub-group, to twenty-two statements within the district enrollment sub-group, to two statements within the education sub-group, to three statements within the sex sub-group.

The results of this study revealed that the following behaviors were considered to be high priority competencies:

Understands how to plan, organize, and evaluate the total school program.

Has acquired tact, insight, understanding, and skills in the ability to work with other people.

Is sensitive to the worthy contributions of students, teachers, and non-instructional employees.

Has an understanding of the board of education's role and understands how to work with the board of education.

Is sensitive to the importance of school community relations and understands how to establish and maintain an operational program.

Understands how to utilize staff members and how to assign responsibility and authority.

Has a functional knowledge of federal, state, and local school finance.

Understands how to prepare and implement a school budget.

Understands how to disseminate information within an organization and in turn to receive feedback within an organization.

Understands how to determine and interpret the community's attitude toward and understanding of the school system.

Has an understanding of school law and of court decisions which have affected education.

Has an understanding of the nature and place of policy formulation and policy determination in the school district.

Behaviors perceived by the respondents to be of high importance in educational administration included those traits, attitudes, and skills pertaining to planning, organizing, implementing, evaluating, interpersonal relationships, communications, and legal and financial aspects of school operation.

The results of this study revealed that the following behaviors were considered to be low priority competencies:

Has a basic knowledge in the field of science.

Has an appreciation of art, literature, and music.

Has a basic knowledge in the fields of history, sociology, and anthropology.

Has a basic knowledge of the history of education.

Is skilled in the use of statistics.

Is skilled in educational research.

Is skilled in the use of the scientific method as a problem solving technique.

Has a basic knowledge in the fields of business and economics.

Has an understanding of how to oversee actual construction of school plants in terms of approved architectural drawings and understands how to detect variations or omissions which might prove costly, a safety hazard, or a gross functional inconvenience.

Has a basic knowledge of the constitution and government of the United States.

Understands how to develop educational specifications for school buildings.

Behaviors perceived by the respondents to be of low importance in educational administration included those traits, attitudes, and skills relating to rarely used competencies, research and statistical skills, historical attitudes and knowledge, and academic and cultural areas.

The following nine educational administrative behaviors were agreed to be of high importance by the total sample in this study and the study by Loy in "A Study of Priorities of Competencies in Educational Administration as Perceived by Randomly Selected Superintendents of Unified School Districts in Kansas," and the study by George in "A Study of the Priority of Selecting and Evaluating a Superintendent as Perceived by Presidents of Unified School Districts in Kansas."

Is sensitive to the importance of school community relations and understands how to establish and maintain an operational program.

Has an understanding of the board of education's role and understands how to work with the board of education.

Has acquired tact, insight, understanding, and skills in the ability to work with other people.

Understands how to utilize staff members and how to assign responsibility and authority.

Has an understanding of the nature and place of policy formulation and policy determination in the school district.

Understands how to prepare and implement a school budget.

Understands how to plan, organize, and evaluate the total school program.

Understands how to determine and interpret the community's attitude toward and understanding of the school system.

Has a functional knowledge of federal, state, and local school finance.

The following ten statements were agreed to be of low importance by the total sample in this study and studies conducted by Loy and George.

Is skilled in the use of statistics.

Is skilled in the use of the scientific method as a problem solving technique.

Has a basic knowledge of the constitution and government of the United States.

Has a basic knowledge in the fields of history, sociology, and anthropology.

Has a basic knowledge of the history of education.

Has a basic knowledge in the field of science.

Has a basic knowledge of the cultural trends in our country.

Has an appreciation of art, literature, and music.

Has an understanding of how to oversee actual construction of school plants in terms of approved architectural drawings and understands how to detect variations or omissions which might prove to be costly, a safety hazard, or a gross functional inconvenience.

Is skilled in educational research.

The high and low priority behaviors as perceived by superintendents, board presidents, and local teachers association presidents who participated in the three studies raises a question in the mind of the researcher--how do these priorities compare with the requirements of the Kansas State Department of Education and existing graduate programs for educational administrators in Kansas? The items included in the high priority statements appear to be covered by the educational requirements of graduate programs for educational administrators in Kansas; however, some variation exists between these statements and the requirements for the Administrator III certificate issued by the Kansas State Department of Education.

At the educational level of achievement expected of the chief school administrator, a minimum of sixty semester hours of graduate credit is required to be eligible for the Administrator III certificate issued by the Kansas State Department of Education. Courses in research and plant design and operation are included in these requirements. Both course requirements were included in the low priority statements as perceived by participants in these three studies.

A minimum of twelve semester hours of graduate credit of the sixty semester hours required for the Administrator III certificate must be in general education and liberal arts courses. Certainly, the areas of science, art, literature, music, history, sociology, anthropology and business and economics can be classified as general education and liberal arts courses. Yet, behaviors relating to these areas were perceived by superintendents, board presidents, and teachers association presidents, who participated in these three studies, to be of low priority when compared to other behaviors.

Based upon the perceptions of the participants included in this study and the studies made by Loy and George, certain administrative behaviors can be broadly defined as being of relatively high importance, of average importance, and of relatively low importance. A priority of competencies in educational administration as perceived by a random sample of local teachers association presidents of unified school districts in Kansas has been provided. The concept that certain educational administrative behaviors are more or less important than others has been confirmed.

In the process of examining the findings of this study and parallel studies by Loy and George, this researcher recommends that further research be undertaken using building principals as participants in an effort to determine the priority of competencies which they perceive the educational administrator should possess. Existing graduate programs in educational administration should be examined to determine which administrative behaviors are currently being stressed and to identify those which should receive more or less attention. Existing requirements by the Kansas State Department of Education for the issuance of the Administrator I, II, and III certificates should be evaluated. Consideration should be given to the development of "intern" programs for educational administrators. Practicing educational administrators could be brought into the college classroom as resource persons to provide prospective educational administrators with an overview of current problems in educational administration. Finally, an evaluation instrument could be developed, using the findings of this and parallel studies, to be used by boards of education in the evaluation of educational administrators.

A RESEARCH PROJECT COMPARING AN ARITHMETIC REVIEW
WITH A CONSUMER MATHEMATICS APPROACH
FOR GENERAL MATHEMATICS CLASSES

Mantz, Clayton Dean
M. A.

Fort Hays Kansas State College
1973

The purpose of this study was to research the comparative contributions of arithmetic review and consumer mathematics as contents of a general mathematics course for schools that could offer only one general mathematics course at the ninth grade level. Because of the close relationship of the ancillary questions: who should be taught general mathematics and how should general mathematics be taught, these were also considered. The study was performed in a typical rural high school and the population was judged to be typical for general mathematics.

Subjects were divided into two treatment groups (arithmetic review and consumer mathematics) and pre- and post-collection of data were carried out to assess changes with regard to the dependent variables--post-test scores on a computational skills test, a problem solving test, a mathematical attitude opinionnaire, and the California Test of Personality--over the duration of the study. Because of differences in mean scores on pre-tests, the covariance method for analysis was used to test for significance of any differences between scores of treatment groups on post-test data. Based on the population and the conditions of this study, the most important conclusions reached were: arithmetic review is a better content than consumer mathematics for a general mathematics class when the primary aim is to obtain an increase in computational skill; consumer mathematics is a better choice of content than arithmetic review for a general mathematics class when the primary aim is to obtain an increase in attitude toward mathematics. Differences were not found to be significant on any other dependent variables.

A DESCRIPTIVE STUDY OF MEDIA PROGRAMS IN
SELECTED SENIOR HIGH SCHOOLS IN KANSAS,
OKLAHOMA, NEBRASKA, AND COLORADO

Maxson, Leon
M. S.

Fort Hays Kansas State College
1969

The purpose of this study was to compare existing educational media facilities, hardware, software, and media staff personnel in selected cooperating senior high schools with the new NEA-AASL recommended standards for media.

Media programs in selected senior high schools in Kansas, Nebraska, Oklahoma and Colorado, ranging from 1,000 to 2,000 students, were studied. The schools were recommended by the Media Consultant of the State Department of Education in each of the states.

Conclusions

After conducting the surveys and the personal interview at each cooperating school, the writer discovered deficiencies that appeared when compared with the new basic media "standards". An immediate question was, "Are the new 'standards' unrealistic for the schools in the midwest?" If the "standards" are unrealistic, there may be a need to re-examine them to fit the needs of each state. Elements which may not have been taken into consideration at the time the "standards" were established were geographic locations, economic conditions, and area populations which could be essential factors in determining the needs of the schools.

The schools used in the study were not representative senior high schools, because of size, so generalizations from the study may seem invalid. However, the schools used were selected and recommended by the Media Consultant, State Department of Education, in each state as outstanding examples of media utilization. These schools might have been viewed as models for all schools in the state as far as media utilization was concerned.

In this light, since these schools did not measure up to the NEA-AASL "Standards", perhaps the standards should be re-examined as to their usefulness as guides.

The media supervisors of the schools surveyed varied from teacher to librarian, to paraprofessional, to the media specialist. There appeared to be a tendency for the media program to be oriented toward the background of the media supervisor. Those possessing a library background seemed more concerned with developing a book-type program rather than a non-book program or developing equal areas respectively. The classroom teacher had neither the time nor the background to develop a sound media program. His first responsibility was that of being a teacher and then a media coordinator.

The services offered by a media center can only be as good as the availability of the hardware and software materials contained in the media center. The media centers did not maintain quantities of software because the centers were deficient in hardware when compared to the "standards". There was a direct relationship between the software needs and the available hardware. Since media centers were found to be deficient in hardware, there was no justification for quantities of software as set out by the "standards". There was a correlation between the type of media used and that which was most prevalent in the school. Consequently, if the school was strong in motion picture films and weak in filmstrips, motion picture films were those most frequently used.

Seven of the eight media centers surveyed were deficient in newer media, such as closed-circuit television, and audio tape retrieval systems, which apparently was caused by the lack of available funds as well as the lack of knowledge of the supervisor in the newer technological areas. A considerable amount of software material could have been locally produced if teachers had consulted with the media director and if they had used the services which the center had to offer.

The effectiveness of any given media depended on its intended use. If the media was used as a tool to assist the teacher in accomplishing a specific objective, clarification of a statement, or for establishing a common background of experiences from which to build, it was being properly used. The type of media used was generally that which was most accessible to the teacher.

The physical plants of the cooperating schools, with the exception of two, had been built ten to ninety years ago. The older physical plants did not lend themselves to a multi-media approach. The older schools were deficient in proper darkening facilities, electrical outlets, and a lack of flexibility that was needed for multi-media use.

There was a noticeable deficiency in acoustical treatment for classrooms, carpeted classrooms, and proper ventilation to maintain an atmosphere conducive to a good learning situation. The newer schools appeared to have more adequate facilities.

In general, media production facilities within the surveyed schools ranked much higher than was expected. Only one school failed to have any type of production facilities available. The effectiveness of any media was as effective as the intent for which it was produced, and the success was determined by the intended purpose for which it was used. The responsibility of the teacher was no longer limited to the student, but his sense of responsibility was now shared by curriculum design, new innovative measures, new technological developments, establishing course objectives, selecting appropriate hardware and proper selection of software materials, and with a constant evaluation of the entire program.

The utilization of the media center's services was not as high as could have been expected from those schools possessing software and hardware and production facilities. When comparing the two schools offering in-service training programs against those not having an in-service program, it can be stated that those schools possessing such a program have greater participation and utilization than those not having an in-service program. There existed very little concern in the area of in-service training with the exception of two schools. Many supervisors stated that a need existed for in-service training, but no effort had been displayed. In order that an efficient media program could exist, it was absolutely necessary to make available an in-service training program in order that the teachers could keep updated on new technological developments and methods. If considerably more effort were displayed in keeping the teachers informed, there could be a noticeable increase in the use of media.

In general, there existed an overall deficiency in the media programs when compared with the new media "standards". A noticeable deficiency existed in the newer technological areas which included closed-circuit television, educational television, and audio tape retrieval systems in six of the eight schools surveyed.

The schools appearing to have the most effective media program were those in which there was considerable vivacity. There was pride and active teacher-student participation. The schools which might be considered poor in terms of media had a negative feeling, a lack of enthusiasm, and very little observable teacher-student interaction.

Recommendations

In studying the results which were obtained from the survey and the personal interviews, the following recommendations were made concerning the surveyed schools:

A long-range media program should be established in order that each successive step may be reached successfully. The goal should not be set so high that it cannot be reached within a reasonable period of time, but high enough so that a noticeable gain might be seen from year to year.

Effort should be made to employ a media coordinator who has the qualifications called for by the new "standards". It should be his responsibility to outline the media program and establish priorities. He should act as coordinator between teachers and administration and work with the administration in long-range planning and budgeting. It should not be his responsibility to shuffle equipment between the media center and the teaching stations, as so often happened. This service could be maintained by student help and a secretary who would be responsible to the media supervisor.

Production facilities should be maintained and constantly upgraded with new production equipment, and a full-time production specialist should be hired to maintain the production load.

In-service training programs should be established in those schools not possessing one, and emphasis should not be limited to production techniques and mechanical aspects of the equipment; but considerable time should be spent on objectives and developing a systematic approach to teaching.

All possible effort should be made, when purchasing equipment, to buy only one or two brand names for reasons of establishing a centralized repair program. This will eliminate the stocking of a variety of spare parts. If a centralized repair program were not to be maintained, consideration should be given to the services offered by the vendor rather than always considering the unit cost.

The findings of this study give some indication as to how some of the schools in the midwest compare with the new NEA-AASL Media "Standards". It was hoped that the individual state departments would take it upon themselves to further undergo additional examination, and studies of this nature, to determine the existing needs of their schools.

It was possible that the new media "standards" were unrealistic for the schools in the midwest; but if they were, it will be necessary for the state departments to take the existing new "standards" and make adjustments to fit the needs of each state.

A FOLLOW-UP STUDY OF PRATT COMMUNITY JUNIOR COLLEGE GRADUATES

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Fort Hays Kansas State College
1969

In 1965 the Kansas Legislature passed House Bill no. 893 establishing a uniform system of public community junior colleges, requiring the junior colleges to offer a comprehensive program including those courses normally offered to freshmen and sophomores at four-year colleges and universities. On July 1, 1967, the Pratt Community Junior College to apply for membership in the North Central Association of Colleges and Secondary Schools.

In view of the necessity to comply with the Kansas law, and the desire of the college to qualify for membership in the North Central Association, it was imperative that a follow-up study of the Pratt graduates be conducted. The purpose of the study was to determine if, in the opinion of the graduates, the educational opportunities available in the Pratt Community Junior College gave the students the necessary background for additional college work, or for immediate employment. The study was directed toward five major areas of the junior college--the General Education Requirements, the college parallel and terminal curricular offerings, the guidance services, and the extra-curricular program.

Data was gathered from two sources. An opinionnaire was mailed to each graduate of the 1964 through 1967 classes, and information contained in the Pratt Community Junior College Bulletin of General Information gave an overview of current curricular and extra-curricular programs and services.

The results of this study revealed that Pratt Community Junior College graduates generally continue their formal education, and select a college or university in close proximity to Pratt. It appeared that Pratt General Education Requirements closely parallel the requirements of educational institutions receiving the Pratt graduates, and most students experienced no difficulty with this phase of their education.

A large majority of the respondents majoring in pre-professional or college preparatory programs were satisfied with the courses taken in their major field at the junior college, and felt they were adequately prepared for senior college work. Most graduates of two-year terminal programs also were satisfied with their curriculum; however, based upon the small number of graduates there appeared to be little interest in the terminal curricula.

The students' concern for effective instruction was reflected in the replies received from the two questions asking for the greatest strength and the greatest weakness of the college. The "faculty" was mentioned most frequently in replying to each question.

Most of the respondents expressed satisfaction with the advice they received in the selection of courses while attending junior college. The number of persons changing majors following junior college graduation was not excessive.

EFFECTIVENESS OF PROGRAMMED INSTRUCTION
AS AN AID IN DIET COUNSELING
OF ADULT HOSPITAL PATIENTS

Miner, Kathleen M.
M. S.

Fort Hays Kansas State College
1971

It was concluded as a result of this study that the method of programmed instruction, including taped instructions with slides, plus a pamphlet of follow-up instructions for use at home was superior to the traditional verbal and written instruction given to the patient directly before going home. Fewer errors were made in the post-test by those taking the programmed instruction than those receiving the traditional verbal and written instructions. One cannot help but wonder if the repetition of facts helped.

All of the patients, but one, even though they had been on the bland diet before, said they learned some new information about the diet through the use of the programmed instruction. Only one person from the other group emphasized the fact she had learned something completely new from the diet instructions given verbally. The programmed instruction approach consistently gave important facts about the bland diet, which the patients and students apparently remembered, while the verbal instructions were observed to vary.

The questions most often missed on the post-test indicated the groups needed more explanation about the basic four and the spices to avoid on the bland diet. The basic four might have been broken down into small groups instead of putting the four groups on one slide. Retention of the basic four is important for persons on the bland diet because they must have sound nutrition habits to keep the gastrointestinal discomforts at a minimum. It was concluded that the patients and students know more about the modified diet than basic nutrition (basic four) even though there was only one question about basic nutrition.

The students participating in the study were ready to listen and make comments about the programmed instruction, but the patients who were concerned about the bland diet seemed more willing to ask questions, learn more about the diet and take the follow-up pamphlet home. Through observing the patients, it was noted that patients had more reason to listen and learn about a bland diet because of their

relationship to gastrointestinal disturbances.

It is recommended a study similar to this one is needed to verify the results. A suggestion for such a study would be to restrict the age of persons in the study to 18-60 years. Reasoning for this recommendation comes from the idea that older people have a hard time concentrating and one of the men, even though he had his bifocals, could not clearly see the small screen, and was limited to listening to the tape.

A combined machine for slides and tape cassette would have been superior to having two separate machines. The time factor for setting up the equipment would be less and the complication of running the machine would be decreased. The ideal machine for the hospital setting would be the one that has the inaudible taped signal to advance the slides. This type of machine was not available for this study.

More detailed pictures, especially on the spices would have made the programmed instruction more interesting to the viewer. Several of the students commented about how much the pictures helped in the retention of the material.

Through observation of the programmed instruction, the viewers could see the lighter colors in the background had faded. Use of red, orange and blue cardboards was best. The use of background color gave the program eye appeal to the viewer and helped hold his attention.

A follow-up study of the patients should be made. The study would allow materials to be sent to the patients to find the retention of the facts about the bland diet after he goes home. Also, the study would show how well the patient had stayed with the bland diet plus learning more about the basic four and other basic nutrition.

The educational level of the patients could be recorded so the validation group would be nearer to the patients in relation to education. The validation group could be an adult education class, consisting mostly of men, since the patients in this study were males. Since there was color in the slides, color could be added to the follow-up pamphlet. The color could be in the paper or in the illustrations and ink. Attracting and holding the attention of the patient is important in the success of diet instruction.

APPLICATION OF OPERANT PRINCIPLES TO ACADEMIC
AND MOTOR TASK BEHAVIOR IN A TRAINABLE
MENTALLY RETARDED CLASSROOM

Pyle, Dana Snook
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Fort Hays Kansas State College
1973

This multiple baseline study examined the effect of tangible reinforcers on two academic tasks and one sensory-motor task with a trainable mentally retarded class of nine subjects ranging from 12 to 16 years of age. A greater increase in the total number of correct responses for the academic tasks over the sensory-motor task was observed. A reinforcer that could serve as both a primary reinforcer (candy) and a secondary reinforcer (token) was chosen. Gumballs were distributed by a gumball machine contingent upon correct response. The subjects immediately grasped the concept of barter and retained all gumballs earned and traded them for small toys and trinkets. The preference demonstrated by these subjects for secondary reinforcers over primary reinforcers is contrary to previous study on reinforcers. It was concluded that academic tasks can be taught to the trainable mentally retarded in a group situation using behavior modification methods, and that trainable mentally retarded subjects may choose secondary reinforcers over primary reinforcers.

A PROPOSAL FOR THE ORGANIZATION
OF A COOPERATIVE SPECIAL EDUCATION PROGRAM
IN RURAL WESTERN KANSAS

Ryabik, James
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Fort Hays Kansas State College
1969

Most current Special Education programs are placing emphasis on children with "learning disabilities". According to Samuel Kirk (1969 address to the Council of Exceptional Children International Convention, Denver, Colorado), there are approximately 2% of these children in our general school population. In the future, it is quite likely that the Federal Government will be providing a great deal of money to the diagnosis and training of these children. Although there is a great deal of duplication when one compares this area with the entire field of exceptionality, it is felt by the present writer that this particular area was not given the emphasis that it truly deserves.

This paper, by no means, solves the many problems that exist in the development of a Special Education Program in a rural area. It does, however, contain a summary of most State standards of all the areas of exceptionality, gives the reader an idea of what procedures he must go through to start a Special Education Program, and, I believe, presents a fairly accurate picture of the number of exceptional children in the ten counties of Western Kansas that have been studied.

The general plan of locating certain classes and resource people in specific areas was based on existing services, population, transportation and sociological knowledge that the writer has gained through working with people in Western Kansas for over six years. The location of classes and the placement of various services are, however, purely the idea of the present writer. One must keep in mind that this study was conducted on a hypothetical basis to provide guidelines and to stimulate. Where or when any of these programs start or take place is naturally the individual school district's discretion. Fort Hays Kansas State College and the State Department of Special Education share mutual goals in wishing to assist these programs when it is appropriate for them to do so.

A major disappointment of this study was that the transportation

aspects could not be worked out in a more systematic way; however, it is believed that this could be a research project in itself. As was pointed out earlier, research is not necessarily conducted to solve all problems, but to stimulate new ideas and criticisms.

A STUDY OF PATRON OPINIONS REGARDING THE EDUCATIONAL PROGRAM OF UNIFIED SCHOOL DISTRICT 395

Schuckman, Leeroy
Ed. Specialist

Fort Hays Kansas State College
1970

Summary

The purpose of this study was to examine the opinions of selected patrons living in Unified School District 395 concerning: (1) closing of attendance centers, (2) the educational program, (3) competence of teachers, (4) transportation of students, (5) further unification of the district, (6) board policies, (7) school finance, (8) understanding of school problems, and (9) school services. Personal characteristics such as marital status, grade level of children, education of respondent, age of respondent, and where the respondent lived were also requested.

A pilot inventory presented to twenty people revealed no problems with the opinionnaire. The opinionnaire containing thirty questions, an introductory letter, a page of facts pertaining to the operation of School District 395, and a pre-addressed stamped envelope were mailed to 800 residents of School District 395. Approximately 361 usable opinionnaires were returned.

The information acquired from the opinionnaires was recorded on IBM cards by the personnel of the Data Processing Section of Fort Hays Kansas State College and then transposed to composite data sheets by a 1401 computer. The figures on the data sheets were then converted to percents and compiled in tables from which interpretations, summaries, and recommendations were made.

The opinionnaire also asked the respondents to make any comments they wished to make. Approximately 80 respondents returned the opinionnaires with comments. Most of the comments were in the form of personal complaints and were negative rather than positive in regard to the school program.

The information acquired from the opinionnaires was then organized into three groups: public opinion, public knowledge, and public vision.

Replies to the public opinion questions seemed to indicate that the respondents were generally satisfied but not overly enthusiastic about the educational program in the school district. Opinions seemed to favor the elementary program more than the secondary program. Opinions were evenly divided when comparing the programs of the two high schools in District 395. There was a negative attitude expressed toward transporting students from one school to another, and a positive attitude expressed in keeping the small schools operating. About 50 per cent of the respondents indicated that the school budget was adequate or more than adequate and that the school board should be more careful in spending public money. The opinion seemed to be that teacher's salaries were about right or maybe a little high. The respondents were definitely opposed to any new building programs, and they wanted more opportunities to express their opinions regarding school decisions.

Data dealing with public knowledge indicated that the respondents were generally satisfied with the teachers in School District 395, and that the homework assigned by the teachers was about right. The respondents were more satisfied with the discipline in the elementary schools than in the secondary schools. The principals and teachers rated average in disseminating school information, and the school board and superintendent rated poorly. Children seemed to be the main source of school information.

Information pertaining to public vision indicated that the respondents were about equally divided on the issue of closing Alexander attendance center. The respondents numbered about 2 to 1 in favor of operating McCracken High School. The respondents did not seem to favor unifying School District 404 and School District 395 at this time. Income tax seemed to be the favored source of money for schools. School lunch, kindergarten, and driver education were the school services offered by District 395 which received the highest percent of approval by the respondents. Approximately 28 per cent of the respondents indicated an interest in serving on the school board.

Conclusions

Over half of the people returning the opinionnaire indicated they were married male and had children in elementary school, high school, or both. Approximately 50 per cent of the respondents were from La Crosse, 31 per cent from McCracken, and the rest from Liebenthal, Alexander, or Rush Center. Most of the respondents were over 35 years of age and had completed high school.

The findings and interpretations set forth in Chapter II form the rationale for the following conclusions:

1. That most of the respondents were satisfied but not overly enthusiastic about the district's educational programs.
2. That the respondents rated the district's elementary and secondary schools as being approximately equal in quality of educational program offered.
3. That the teachers were ranked average to slightly above average in quality of teaching ability.
4. That teacher salaries were rated as being about right.
5. That approximately 50 per cent of all the respondents felt that students attending McCracken High School had the opportunity to receive as good an education as the students attending La Crosse High School and that the respondents from McCracken were much more positive in their reaction than were the respondents from the other communities.
6. That the respondents indicated homework assignments were about right.
7. That there was an indication the discipline was not strict enough in the two high schools of School District 395.
8. That the respondents were about evenly divided in their opinions for closing Alexander attendance center.
9. That approximately 30 per cent of all the respondents were in favor of closing McCracken High School.
10. That respondents from McCracken were definitely opposed to closing the McCracken High School.

11. That the respondents from McCracken were more opposed to transporting students than were the respondents from the other communities involved in this study, and that approximately 50 per cent of all the respondents were opposed to bussing students from one school to another.

12. That about 55 per cent of all the respondents were opposed to any further unification, and that 75 per cent of the respondents from McCracken were opposed to more unification as compared to 44 per cent of the respondents from La Crosse.

13. That about 42 per cent of all the respondents agreed that small schools should be operated regardless of cost. That the respondents from McCracken were definitely more in favor of operating the small schools than were the respondents from the other communities.

14. That the board and superintendent were rated poor in school-community communication by about 45 per cent of all the respondents. That approximately 27 per cent of the respondents rated the principals and teachers as poor. That the respondents from Rush Center were the most critical of the board and superintendent and the respondents from McCracken were the most critical of their principal and teachers.

15. That approximately 50 per cent of all the respondents indicated they did not have adequate opportunities to express their opinions regarding school matters.

16. That about 67 per cent of the respondents felt there was enough money or more than necessary budgeted for the schools, and only 10 per cent of the respondents indicated there was not enough money for schools.

17. That about 50 per cent of the respondents felt District 395 was spending public money wisely, and that 50 per cent of the respondents indicated public money was wasted.

18. That income tax as ranked first as a source of income for schools in District 395.

19. That respondents were definitely opposed to any new building programs in District 395.

20. That children were identified as the best source of school information in District 395, and that radio and television were rated as the poorest source of school information.

21. That over 50 per cent of the respondents felt school lunch, kindergarten, and driver's education were necessary school services. That less than 50 per cent of the respondents felt the other school services were necessary.

22. That the respondents were not convinced that closing schools would improve the school program or that such action would reduce school costs in District 395.

23. That between 50 and 75 per cent of the respondents in District 395 did not realize the value of school services such as school nurse, speech therapist, remedial reading, and adult education.

24. That respondents were not convinced that transporting students from one school to another was saving money or providing a better education in District 395.

25. That respondents felt unification should have reduced costs and instead costs have gone up in District 395.

Recommendations

After careful study and consideration of all available data and information compiled in this study the following recommendations are proposed:

1. That the local teachers' association and the school board of District 395 spend more effort informing the public of problems related to teacher salaries and how the costs of education increase with the rest of the economy.

2. That District 395 analyze the educational program and school budget by involving lay personnel and then establishing priorities.

3. That the two high schools in District 395 evaluate and study their procedures in handling discipline problems.

4. That administrators and teachers of District 395 disseminate more information regarding school policies, curriculum, and school related problems through the media of news letters, teacher-parent conferences, newspapers, radio, television, and meetings such as an open house or a parents' day.

5. That any changes contemplated in District 395 involving students, the school program, or school costs be evaluated with the idea that the change will benefit the child.

6. That the public of District 395 be informed through public meetings, newspapers, and newsletters regarding the advantages and disadvantages of transporting students from one school to another, of closing attendance centers, and of further unification.

7. That the school board of District 395 provide opportunities such as publicized board meetings for the general public to express their opinions regarding school matters, and that communication be improved between all persons involved and interested in education in School District 395.

A STUDY OF POST SECONDARY EDUCATIONAL
PURSUITS FOR MITCHELL COUNTY HIGH
SCHOOL GRADUATES FOR 1961 AND 1962

Severance, Robert James, Jr.
Ed. Specialist

Fort Hays Kansas State College
1970

Finding out the post secondary educational pursuits of the 1961 and 1962 Mitchell County high school graduates as well as their opinions concerning the nine areas of study of their high schools was the purpose of this study.

A total of 265 graduates were considered in the sample with 203 opinionnaires being returned and considered useable. The data indicated Mitchell County to be an average county in most respects. The seven high schools in the study were considered typical of the high schools found in North Central and Northwest Kansas. These high schools included Beloit High School, Cawker City High School, Glen Elder High School, Hunter High School, St. John's (Beloit) High School, Simpson High School and St. Boniface (Tipton) High School.

The general consensus of the educational authorities quoted in

the review of selected literature was that education must prepare the individual for life as well as for making a living. They contended that a general education mold for all students was not desirable--that fulfilling the needs of the individual was paramount in curriculum planning.

The study revealed that a large number of the responding graduates, 132 (65.2%), continued their education following high school graduation. This included 88 (43.4%) who started to a four year college. However, only 80 (39.4%) of the original 132 completed their initial post secondary education program.

After eight years only 59 respondents (29.1%) had completed at least a B.S. or B.A. degree in college. Of this number, 10 had achieved a M.S. or M.A. or higher degree. Three respondents had achieved the doctorate degree.

The data indicated that parents were the chief influence in selecting the post secondary education pursuits of these responding 1961 and 1962 Mitchell County high school graduates. A majority of these graduates, 107 (52.7%), reported they had entered the field of employment for which they were originally educated. A large percent of these graduates (41.4%) were of the opinion that their high school education helped somewhat in preparing them for their trade or profession.

Of particular note was the fact that 81.3% of the responding graduates were either satisfied or very satisfied with their present trade, profession or occupation. The data also pointed out that 37.5% of the respondents had held three or more full-time employment positions since graduating from high school. The outward migration of these students was evident by the fact that 65.5% of the responding students' present homes were over fifty miles from their home community high schools.

Regarding the opinion of the 1961 and 1962 responding Mitchell County high school graduates concerning the nine areas of study as taught in their high schools, English Language Arts rated the highest, and was followed in order by Business Education, Physical Education and Health, Mathematics, Science, Practical Arts and Vocational Education, Fine Arts, Social Science and Foreign Language.

A FACTOR ANALYTIC STUDY OF JOB FUNCTIONS
AND EMPLOYERS' PREFERRED TRAINING MODELS
FOR MASTER'S LEVEL CLINICAL PSYCHOLOGISTS

Soper, William Barlow
M. S.

Fort Hays Kansas State College
1974

Two factor analyses were conducted on the functions that master's level clinical psychologists perform, and on their employers' preferred training models as indicated by questionnaires returned from 400 mental health agencies west of the Mississippi River. The first analysis, for all facility types, extracted seven factors which were labeled Outpatient Therapy, Inpatient Therapy, Community Mental Health, Research Assistant, Inpatient Ward Management, Psychological Testing, and Other Functions. A second factor analysis on the data returned from community mental health centers produced six factors: Outpatient Therapy, Inpatient Therapy, Ward Management and Research, Research Assistant, Psychological Testing, and Community Mental Health. The factor structures of the two analyses were quite similar in terms of their apparent meanings. The results of this study support the belief that master's level clinical psychologists are performing traditional clinical functions such as psychotherapy, psychological testing, and research, as well as functions associated with the more recent community mental health model. The results were viewed as an important step toward more rational, job-oriented curriculum development for master's level clinical psychologists.

For Analysis I over all facilities, five of the seven factors accounting for most of the common variance seem relatively easy to interpret in terms of traditional clinical psychological roles and functions. Factors I and II can easily be characterized as therapy factors. Their independent extraction based on the outpatient (Factor I) verses inpatient (Factor II) dimension was probably due to the fact that most facilities mainly serve one or the other type of client. The relatively small loading of Factor I on the Community Consultation variable is consistent with the expectation that those facilities, such as many community mental health centers, which emphasize outpatient treatment may also be more likely to view community consultation as an important function.

Factor III (Community Mental Health) loaded on all functions and

model variables which one would expect should be associated with the community mental health model. Factor IV (Research Assistant) was so labeled because it loaded highly on the research assistance function and the research technician model, but not on the independent research function. Factor VI (Psychological Testing) would appear to need little explanation.

Less easily understandable were Factors V (Inpatient Ward Management) and VII (Other Functions). It seems certain that Factor V must be associated with inpatient facilities where ward management and coordination of ward-wide therapy programs of some kind are important functions.

The extraction of Factor VII loading highly only on "other" functions, suggests that there may have been a group of facilities for which the function and model variables provided on the questionnaire were not appropriate. Some of the more frequently mentioned "other" functions include: general program development and administration, along with training of staff, paraprofessionals, and nonprofessionals.

The analysis for community mental health centers alone produced a set of factors which, in terms of their defining variables and apparent meanings, was quite similar to that obtained for all facilities. In part, at least, this was the result of the statistical dependency between the two analyses, with mental health centers providing about 48% of cases in the first analysis. Because the analyses were dependent, however, their points of contrast are all the more striking.

The analysis for mental health centers produced several factors which replicated those obtained in the first analysis, such as Out-patient and Inpatient Therapy (Factors I and II), Research Assistant (Factor IV), Psychological Testing (Factor V), and Community Mental Health (Factor VI). A factor which loaded only on the "other" function variable did not appear for mental health centers; a result for which this author has no ready explanation.

Factor loadings on preferred training models were as expected for three of the five specific models, in both analyses. The community consultation model was loaded by the Community Mental Health Factors, the research technician model by the Research Assistant Factors, and the psychometrician model by the Psychological Testing Factors, in both analyses.

The behavior change agent model was not loaded by any retained

factors. Perhaps its relatively vague, or too general meaning led it to be interpreted differently by different respondents, leading to no strong correlations with other variables.

Somewhat surprisingly, neither was the therapist model loaded highly by any factor in either analysis, in spite of there being two psychotherapy factors extracted in both. Perhaps this was caused by "therapist" being a model which was selected too frequently by all facility types, thus preventing its selection from being particularly highly associated with any of the clusters of function variables defining the extracted factors.

Only to a limited extent can the particular order in which factors appeared in these analyses be taken to indicate the relative importance of the functions and models defining them for master's level clinical functioning. Factors are extracted in decreasing order of their proportions of total variance accounted for. Those values will be partly a function of the number of variables included in the survey which might reasonably intercorrelate to form a particular factor, and the size of their intercorrelations; neither of which is a good indicator of the "importance" of a particular cluster in terms of overall master's level clinical functioning.

An analysis has yet to be performed which might provide more useful data to guide the development of curricula which would be most relevant to the clinical functions actually performed, and training models most preferred, for master's level clinicians. Such an analysis would, in essence, involve the scaling of individual mental health agencies on each extracted factor, just as individual subjects are scaled on behavioral factors when they take a test which has been constructed by factor analytic methods.

By this factor scaling method each facility providing usable data for these analyses would be given factor scores which were standardized to allow comparisons across all factor scores. One facility might then be "high" on Inpatient Therapy and Research Assistant, another might be "low" on both of those factors, but "high" on Community Mental Health, and so on.

Although the individual facility profiles which might thus be obtained would be of interest to graduate students looking for jobs, of greater general interest would be the possibilities for obtaining mean profiles for facility types. Master's level clinical training programs could then be geared to prepare students whose particular skills best matched those required by any particular facility type,

that facility type which provided the best overall source of employment, or all facilities taken together.

While that final step in this research program has yet to be taken, the present analysis of factor structure suggests that it is at least feasible. In addition, it suggests that traditional clinical psychological functions involving psychotherapy, psychological testing, and research are being performed by master's level psychologists. Their research activities are not likely to pertain to their own projects, except perhaps in some mental health centers where there are inpatient units.

There are some facilities, probably mostly mental health centers, where master's level psychologists are performing a cluster of newer functions commonly associated with the community mental health movement, including primary prevention, crisis intervention, and consultation with other disciplines and in the community.

These analyses have also defined a fifth distinct cluster of functions which may represent the most unique contribution of the study. Where mental health facilities have master's level clinicians working on inpatient units, they may be likely to be coordinating or administering a token economy or other types of ward-wide treatment programs. And, when they are doing that in community mental health centers, they may also be engaged in research activities, perhaps involving questions pertaining to the conduct of those ward programs.

DEMONSTRATION OF THE WORKING RELATIONSHIP OF THE
HOMER B. REED ADJUSTMENT AND TRAINING CENTER
WITH OTHER COMMUNITY AGENCIES IN SERVING DISABLED
AND DISADVANTAGED PERSONS IN ELLIS COUNTY

Wertz, Patricia A.
M.S.

Fort Hays Kansas State College
1970

The purpose of this paper was to trace the historical development of the Homer B. Reed Adjustment and Training Center, and demonstrate the working relationship of the Center to other community agencies. To accomplish this, a detailed background was given on the history of the program regarding such points as:

1. In 1965 the initial survey to re-identify the mentally retarded tested at Fort Hays Kansas State College over the past twenty years,
2. Formation of Human Development Programs, Inc., in 1966 to conduct a survey in the twenty-two counties of northwest Kansas to identify the handicapped and provide leadership in securing programs for them,
3. Acceptance by the Homer B. Reed Association for Retarded Children to be the sponsoring agency for the facility, thereby providing financial assistance, a Board of Directors, and organization of volunteers in renovating the building,
4. Growth of the program from three to twenty clients, development of housing units, increase of contracts from three to over fifteen, formation of a corporation separate from the ARC, development of a community board, general program improvements and client placement on the job,
5. The training role the center provides to students majoring in Special Education, and
6. The relationship of the program to the Human Health Services as demonstrated by the grouping of these agencies under the following headings:

- a. Ancillary Services,
- b. Contract Referral,
- c. Educative and Preventive Services,
- d. Employment,
- e. Financial Support,
- f. Legislation and Evaluation of Health Needs,
- g. Medical Services, and
- h. Referral Agencies.

To truly represent the community, the program must become a living, breathing, part of the community. The development of a workshop begins as a public venture, but will end as a community responsibility. Involvement is fostered through a volunteer program, utilization of available professional resources, and good public relations. The services of the facility should reflect the aspiration of the community. Leadership will need to come from the business community. In a project as complex as this, each agency has a responsibility to themselves and the disadvantaged they are serving, to work together in close cooperation. The end results would be more extensive services and less duplication.

Agencies involved in social welfare and recreation programs within the community must learn to adapt their programs to provide services for the disabled as well as for those who are not. The greatest service a community rehabilitation center provides is an indirect one: That of providing a situation wherein a large number of citizens come to have a first-hand understanding and appreciation of what rehabilitation really is. As partners in this joint venture, profit can be added to the economy of the community. The value of the disabled to humanity and to himself can also be greatly enhanced.

WASHBURN UNIVERSITY OF TOPEKA
Topeka, Kansas

A STUDY OF ADULT EDUCATION WITH SPECIFIC REFERENCE
TO THE CASE HISTORY OF AN INDIVIDUAL

Coder, Dorothy L.
M. S.

Washburn University
1971

A more systematic and well planned program of guidance and counseling, particularly with the rapid technological changes occurring in our culture, is badly needed in our society. Counseling is defined by one counselor as face-to-face interviews conducted in privacy, usually centered in immediate problems and often terminated when solutions are found; the process of helping individuals to better understand themselves in their abilities, aptitudes, interests, vocational goals, and personal limitations.

With the prediction that a person will change jobs on an average of at least three times during his lifetime, more adequate advising for adults is imperative.

In the education of adults, effective counseling is one of the most neglected areas of development. With the elective system in our secondary schools, much attention has been given to guidance programs and to the training and certification of secondary personnel in counseling. But to a large extent the adult has had to seek counsel where he could find it. Too often this has been from persons with little or no specific training in the art of adult counseling. It is a well-organized fact that the needs of adults are different from those of youths.

Robert J. Havighurst has distilled the special development tasks of adults which are fundamental for understanding the unique problem of adults as contrasted with those of children.

In many respects business and industry have done a better job of recognizing the importance of counseling adults than has education. Directors of personnel, social workers, directors of adult education,

and administrators in voluntary agencies have been concerned with the wellbeing of individuals who are maturing. They have felt for a long time that most persons would be happier and work more efficiently if engaged in tasks for which they are best suited in terms of their abilities and interests.

Our increasingly technological society must develop a concern for more adequate counseling and guidance for the young adult, the adult in his later years, and the retired person. The extended life span and the increased leisure time available make the counseling functions even more demanding for our institutions of learning.

When radical changes come in our society, the individuals who are inadequately trained and vocationally maladjusted suffer the most. Most of the employment services of the various states and the territories have done a remarkable job of assisting both the individual and the industries in testing for vocational skills and for placement in jobs most fitting for the adult. Where there are physical and mental handicaps, the vocational rehabilitation departments of the states have helped widows, invalids, and their dependents develop or reclaim skills necessary to make them productive members of our society again.

Some of our universities are making special efforts to provide testing and guidance services to adults as well as to youth. Some agencies of adult education offer vocational testing on a fee basis, but most public institutions are providing some kind of guidance as a public service.

The effective counselor is the person who can relate well with the adults, help the adult reflect on his own problem, point out strengths and weaknesses in the adult's approach to his self-actualization, and offer suggestions for educational programs, methods, or agencies for fulfilling the goals outlined by the adult. It is dangerous for the counselor to attempt to solve the problems for the clients, for there are many subtle motivations that cannot be fully understood without much depth counseling.

But the counselor can suggest alternatives, open up new avenues of possible solutions to problems, and suggest educational programs that may assist the adult in enriching his life or developing needed skills. Dr. Carl Rogers has made the academic community aware of the danger of advising the client. "If I were you, I would...." The role of the counselor is to help the adult come to wise and mature

decisions himself and to take responsibility for his actions.

Many factors of influence need to be considered in the education of the culturally deprived individual. Psychologically, learning is the process of adapting to the changing self as well as to the changing environment. An individual is a human being, without regard to the place of his birth or of his upbringing. He has inherent potential for growth and development; the extent of the development depends on the environmental influences that are brought to bear on him. Learning is a step toward survival, but the human being is not content with minimum adaptation for keeping alive. He strives for mastery of himself and for conditions that are satisfying during his struggle for survival.

Education is desired by the culturally deprived more than is generally recognized. Different segments probably want education for different reasons. Some desire it for vocational improvement, others so that they will not be deceived as easily in the modern world, still others because of their respect for science. The difficulty in the school system arises because the school stresses education for its own sake and as a means for the development of self-expression--orientations with the culturally deprived do not share. Furthermore, the discrimination unwittingly practiced in the school aggravates the problems, and produces the schism between school and education.

I would like to conclude this chapter with three levels of approach to education for the deprived individual.

1. At the simplest level, the approach requires a recognition of the educational deficiencies that result from the life conditions of the underprivileged. Here would be included the confusion and ambivalence about education, the limited reading ability, the fear of failure, the inadequate test-taking skills, and lack of school know-how.

2. At the next level the approach calls attention to the fact that the underprivileged have specific interests, like science, automobiles, sports, and that these interests can be used as "openers" for developing educational understanding. Under this heading, too, would be included role-playing and other physical and visual techniques. It is a common mistake for the teacher to believe that she need only recognize these interests in order to make contact with the person. She may find any genuine appreciation of these "low level" interests impossible for her. If the teacher cannot in any way appreciate the interests of the deprived, it will be difficult for her to see any possible

continuity between these interests and advanced education; consequently, the recognition of differences in background, while it may lead to a pleasanter atmosphere, does not necessarily produce real educational progress.

3. The highest level is what we call the "cultural approach", by which we mean a genuine respect for the efforts of the deprived in coping with difficult life conditions. Many of the institutions and values that characterize the life of disadvantaged groups have arisen from these efforts.

A LOOK INTO THE FUTURE A CAREER EDUCATION SEMINAR

Craeton, Caroline
M. S.

Washburn University
1975

In the past four years, since the federal government adopted the educational programs entitled Career Education, much money, theory, and experimentation have been invested. (25, 38) The subject is still controversial. Some authorities enthusiastically proclaim it the answer to unnecessary and unrewarding intellectualism; others are highly suspicious of it as a genuine contribution to curriculum. (5, 11) It has been the purpose of this paper to affirm the former and dispell the latter.

Toffler, when discussing his new book, Education for Tomorrow, stated the realities of the situation with great insight when he said:

I can think of no more important role for education than to serve as one of the great adaptive mechanisms both for the social system as a whole and for the individual in it... There will be two major streams of change in education in the 1970's. One has to do with action and action learning--with moving education outside the classroom and involving learners with the real-life activities of society. The other has to do with---building "future consciousness" into the culture. (26, 72-75)

Mr. Toffler continues to discuss the merits of learning from experts, age and social gaps which must be bridged, and an inquiry into human and community values. (26, 75-76) If Mr. Toffler is correct, then this program must surely be a step in the right direction.

The ultimate success of a program of this type cannot be measured until the participants have matured and are actually involved in careers which Fate and Determination have provided for them. A follow-up questionnaire ten years from now should be most revealing concerning the students' job placements, their correlation with these test scores (Table II) and the job placement records, their satisfaction with their careers, and changes they might make if given the opportunity. It would be interesting to know how avocations and leisure time activities correlate with these scores and job interests from this period in their lives. In any case, this evaluation must be limited to the conclusions drawn by the students at the end of the program.

In evaluating the program the students filled out "Summing Up", a questionnaire. All of the students recommended that the unit be offered to the next ninth grade class with the exception of one student. When asked about his answer in a later interview, February, 1975, he recalled the unit in generally affirmative terms and stated that he didn't remember his negative answer. He did recall his specific criticisms of the program, too much note-taking and letter writing. The school counselor remembers this period of the boy's life as being generally depressed and negative, so perhaps, the negative response was a result of his own emotional situation rather than the program.

The criticism of too much writing and note-taking was the most prevalent. Of the forty-one students, thirteen stated that this was the activity (booklets, pamphlets, note-taking, letter writing) that needed modification. One student remarked that, although the day of independent study was dull, it did provide information that was difficult to obtain elsewhere. This was three times as many complaints as the next ranking activity (viewing, filmstrips) received. The students found the filmstrips a poor substitute for tours and on the job experience. A surprising number of students objected to the mini-tours saying that they were irrelevant to their interest choice. They seemed unable to comprehend the "open ended" aspect of this experience. They enjoyed the tours but wished they had seen more in their own job cluster.

Although the students were far from excited about taking the DAT and Kuder, they were very interested in the results of these surveys and how they could be used as guides in decision making.

Once the relevancy of the scores was clear, most of the students used the scores as they were intended to be used.

The most favorably received activity was the full day on the job. All respondents to the questionnaire except two stated this as a worthwhile experience. One of the two exceptions had to leave his job with a severe headache, and the other student was number 16 (Table II). This is the same person who did not recommend the unit for the next class and the person who was discussed in Chapter IV who returned to his original interest in auto mechanics.

The adult participants in the program expressed positive attitudes towards the unit. The teachers and supportive staff directly involved in the program felt that the unit was very rewarding. Uninvolved personnel who sacrificed their class time felt, throughout the program, that the lessons learned outside the classroom were educational experiences of the highest quality and well worth the time lost in regular class work. The parents who were used as speakers and drivers were delighted with the program, remarking that they wished that they had had something like this in their educational experience. All the businesses that were used stated that they thought the philosophy had merit. Not all were favorably impressed with the student assigned, laziness and unresponsiveness were two criticisms; but it must be remembered that this was a learning experience for business as well as the student, and bridging the communication gap is one of the purposes of the program. Several businesses expressed a desire to be remembered in future units.

AEROSPACE UNIT FOR THE MIDDLE GRADES

Craig, Cindy Lynn
M. S.

Washburn University
1972

The students involved in this study were twenty fourth graders and twenty-seven third graders. An aerospace unit was taught during the first four calendar months of the 1972 year.

The purpose of this study was to develop and impliment an Aerospace curriculum which could be used for grades three and four. The writer hoped to widen the children's experiences and understandings of aviation and aerospace.

A variety of procedures and techniques were used in carrying out the activities for this unit. The use of audio-visual materials, speakers and field trips were most helpful in presenting new concepts and background knowledge about Aerospace. These activities were presented by a team of teachers who developed the unit on a topical approach.

Job cards were used to individualize materials according to interests and abilities. The cards helped to adapt the study to the open classroom in which this was being presented.

As the children participated in the activities for the unit, the writer observed and recorded each child's progress in a pupil record file. The children evaluated the unit which was presented. A questionnaire which required much personnel opinion on the part of the students dealing with ideas presented during the unit was given to each child. The questionnaires were not graded but rather evaluated according to the logicalness of the answers given.

The children involved in this study showed much interest in learning about space and aviation. The writer noticed that much curiosity about space and aviation was displayed. Many of the children involved themselves in activities outside of the classroom including building airplane models, keeping up with news on space and building rockets and launching them.

From this study and the children's evaluation of the course

taught, one could summarize that third and fourth grade children have a natural curiosity about the new and unknown. Aviation and Aerospace studies are new in any depth to these students.

During the course of the unit, the children's understanding of the material was evaluated by a variety of means. Their participation in the activities, their willingness to bring materials from home, such as newspaper articles, their interest in reading books about space travel, their suggestions in discussion periods about how to do things, and their general level of interest in the unit, are a very few of the things that will help determine whether the material was presented in a way that was meaningful to them. The writer feels that this kind of evaluation integrated with a student evaluation following the total presentation of the unit was most helpful.

1. Did I motivate the pupil in the approach?
2. Did the pupils enjoy the unit?
3. Were there enough materials and activities provided to meet the needs of all pupils?
4. Were the general objectives met in the unit as a whole?
5. Did all pupils participate willingly and with interest?
6. Was enough interest stimulated in aerospace to motivate the pupils to further study the unit after its completion?
7. To what extent were the specific objectives met individually?
8. Did the pupils take pride in the culminating activities?

There seems to be a great interest on the part of educators and the public in teaching aviation and aerospace in the public schools. There are many community speakers available in any town who are only too willing to come speak in the schools and many of the aircraft and governmental aviation commissions are more than happy to equip the classrooms with multitudes of aviation and aerospace pamphlets and films.

The writer could recommend including an Aerospace unit to be taught to the middle grade students, who seem to have a natural curiosity about space. The writer would also recommend that this

unit be taught in such a way in which the students become actively involved.

A CAREER EDUCATION PROGRAM AT
THE PRIMARY LEVEL OF
SCHOOL

Delaney, Thelma Suzanne
M. S.

Washburn University
1974

All persons working in the field of education have become aware of the term Career Education these days. The United States Office of Education has given the implementation of Career Education a place of top priority for the attention of educational leaders.

This emphasis upon the concept of Career Education came about as a result of the increasing evidence that a very high percent of our high school graduates are ill equipped to go into the work world. They have, neither the knowledge of the opportunities in the different careers they might choose, nor the skills they might require in order to qualify for them.

Educators are agreed that a program of Career Education, to be truly effective, must be introduced at the elementary level and continued through the entire schooling process. At all levels, it is the teachers who are the key to infuse real life into any area of study.

It became the conviction of the writer that the presentation of a Career Education study in my own classroom was a challenge I was ready to accept. Participation in an in-service training course in Career Education and subsequent reading of material pertaining to the concept resulted in the planning for the unit.

My purpose in writing this paper is to tell how this program in Career Education was carried out in one second grade classroom and to relate my assessment of the results. The study was, of course, limited to the twenty children in the room involved and it reflects the interests and ideas of an average class.

A variety of procedures was used in presenting this unit. The entire class participated in group activities such as hearing speakers, viewing films, and making field trips on two days each week. The other days were used for each child to work individually as he chose to read books and pamphlets; make notebooks; view film strips and hear tapes; or study the charts and posters on display. The children were encouraged to create their own bulletin board displays and do other art work expressing their particular interests. These periods of individual work helped them to develop independence and the creativity expressed was very revealing.

Members of the community were cooperative in their response to our requests for information. The parents responded well to a questionnaire about their job areas. Examples of persons who came to tell about their work for us were: a nurse; a cook; a fireman; a plumber; a teacher; a banker; a librarian; a homemaker; and a nursery man. One person brought slides from Alaska which demonstrated to the children that a different environment creates different work needs and opportunities.

The field trips we made included a visit to a police station; a farm; a dairy; a bakery; and a supermarket. These experiences gave the background for lively discussions by the children and revealed their impressions of the work they had seen done. It became obvious that the students had observed the interdependence of jobs. For instance that the farmer must first raise the grain in order for a baker to have a supply of flour to make bread. They commented that it was the farmer's work that supplied the products sold by dairies and supermarkets. They recognized that policemen and firemen performed valuable services for us and that they, along with doctors and nurses as well as other workers, required both goods and skills so they could perform their services.

The results of the tests given before and after the study revealed that the students did gain a knowledge of the work world and that they did discern which tools are used in a given occupation. Fifty-five percent of the class achieved a perfect score when the pre-test was first given. After the program ninety per cent had a perfect score. The remaining ten per cent had done well with only one pupil as low as eighty-five per cent. Their interest in the various job choices was scattered through all the categories. Cowboys, spacemen, doctors, and farmers led the field for the jobs they felt were best.

The writer would recommend including similar units in career awareness for children in the primary grades. I am enthusiastic about expanding this program in my plans for another school year.

The writer would also recommend that such a study give the pupils much opportunity for active involvement. The children have demonstrated to me that they have a deep curiosity as to how different jobs are done, and why they must be done in certain ways. They have learned there is an interdependence between jobs.

They have learned there is a need for all types of work and that each of us shares in the benefits from another persons efforts. One might summarize it by saying that they have learned work is necessary in our society for we need the income and we need the sense of helping others as we do our jobs in producing goods or performing useful services.

A PROPOSAL IN AEROSPACE EDUCATION FOR WASHBURN UNIVERSITY

Martin, W. D.
M. S.

Washburn University
1972

The objective of this study was to develop a proposed area of concentration in Aerospace Education suitable for implementation in concert with the Bachelor of Education degree at Washburn University. The author attempted to outline the importance of Aerospace Education to prospective teachers with respect to the impact of the total aerospace environment on our society. In particular, a searching examination was made regarding the present and future implications of this environment as it will affect the life-style of our young people.

Procedure

Data pertinent to the development of a proposed program in Aerospace Education were compiled and evaluated. These data were comprised of several courses of study now being conducted at various institutions of higher learning, governmental projects and approved plans dealing with the aerospace industry and space exploration, and related research - all of which represented the documentation required to proceed with this study. Additionally, many discussions

were held with concerned interested educators, industry representatives, and government personnel. These discussions provided the impetus was found to exist. Each course would contribute to the one following; Air-manship would provide both new and related material and the Workshop, if elected, would supply the practical aspects of Aerospace Education.

A final analytical measurement of the proposal contained in this study was necessary. This measurement involved a comparison of recommended courses and the requirements of the State Board of Education pertaining to Aerospace Education. The proposed course was found to be complete in every respect and consistent with State Board (and Washburn University) requirements for certification.

Conclusions

From the data presented and analyzed, it was evident that Aerospace Education has not received the proper attention in our schools. A research paper completed in 1969 by Burton H. Watkins indicated that only 87 four-year colleges and universities were conducting any form of Aerospace Education and only 27 were involved in summer workshops. There is little evidence that a significant increase in this area has occurred over the past three years.

From this study the following conclusions were reached:

1. Aerospace Education should be instituted at Washburn University to the extent considered in this proposal. Every effort should be made to integrate Aerospace Education into the Washburn University curriculum in view of the far-reaching impact of the aerospace environment on our everyday life and in consideration of the minimal disruption and low cost of program implementation. This proposal in itself is minimal but should be contained as recommended until experience dictates an expansion or reduction in course offerings.
2. Emphasis should be placed on teacher preparation in order to insure that general or basic knowledge of the aerospace environment is presented to students at the elementary and secondary levels.
3. A sequential or building block approach to teacher preparation should be observed; the suggested courses in this study have been reviewed and evaluated in this direct context.

4. Aerospace Education should provide many alternatives for career considerations for young men and women. Exposure to these career opportunities should inspire students to gain further knowledge and understanding of the aerospace realm.

5. The Aerospace Industry should continue its current growth pattern with increasing budgetary aid and new programs initiated by federal and state governments which are designed to exploit the space age and contribute to the overall welfare of our society.

It is believed by the author that time and place could not be more appropriate for serious consideration of this program. John Ivan, administrative assistant to the Governor of Kansas recently referred to the state's tremendous aerospace industry (Kansas produces 65% of the nation's general aviation aircraft) and predicted that the non-commercial segment of aviation will be one of the nation's greatest growth areas in the next decade. To ready ourselves and our children to take full advantage of this growth and the total expectations of forecast aerospace developments, a beginning must be effected in our educational institutions - at once.

Suggestions for further study

Several facts pointed out in this study, and not appropriate for discussion there, do warrant further study. These are areas in which the author has acquired opinions both as a result of this study and because of many experiences in the aviation field. It is hoped that the discussion of these points will stimulate the thinking and actions of others interested in Aerospace Education.

The author feels that the real need is for the development of comprehensive Aerospace Education programs and not programs with limited objectives and limited course offerings. There are a few such programs now in existence that could, in the author's opinion, serve as a model of the type of curriculum that can be effective in meeting the needs of society.

A comprehensive Aerospace Education program should provide the type of education needed by the several sectors of our society. The program should include courses in the teacher education field so that prospective teachers will have the opportunity to acquire knowledge pertaining to this vital part of our economy. The asset that knowledge concerning Aerospace can be to college graduates is a factor that very often is overlooked. Another part of a comprehensive program, a

somewhat controversial one to some educators, is providing the education necessary for the graduate to be directly employed in.

CAREER EDUCATION AT THE ELEMENTARY LEVEL

Wortman, Mary
M. S.

Washburn University
1974

The purpose of this study was to develop in children an awareness of the wide range of occupations within our community. The writer discovered the need for this study when the students were asked to write about their parents occupations. They all knew where their parents worked, but were at a loss to describe their duties or the specific tools, instruments, or machines they might use. The writer was surprised that most of the children could not see any the working community. A unit of study was designed and set in motion in hopes that some enthusiasm could be generated with regard to the wide range of occupations in the real world.

In order to direct interest toward this goal, films were used to arouse their curiosity. After each film a discussion followed pointing up the training needed for the various jobs, the pros and cons of each, and whether they thought it would be interesting work.

Before the films were quite finished the writer set up "career centers" in the classroom to stimulate them with "hands on" experiences. All the centers were popular, but the ones that attracted the most attention were the Science Center and the Repair Center. And surprisingly, at least to the writer, were the number of girls interested in the Repair Center. One, especially, was just as efficient as most of the boys at this center.

At this time, letters were sent to the children's parents inviting them to visit the class and tell about their job. It was very interesting to get the reactions from parents. It was apparently the first time they were acquainted with a program like this and they wondered what it was all about. They were very enthusiastic and we had some outstanding

visitors. One of the most interesting was the social worker. She told why it was necessary to have social workers, what they did and gave some isolated examples to prove her point. She talked on a level they would readily comprehend, talked slowly and made sure they understood her point before moving on. Several children commented favorably on her visit.

At this point the writer felt the students had sufficient background to do a project on their own. They were free to choose whatever occupation they were interested in or wanted to find out about and they could choose any method of presenting it to the class. They really seemed to enjoy this "freedom" and worked diligently on their projects. They were free to help one another with skits and plays or art work if it was used. In this way, they not only found out about an occupation they were interested in, but listened to the others in the class present theirs. Those who presented skits, plays, and the puppet show really came across well. One girl did her's on the making of jewelry. She brought a collection of hand made jewelry from various countries, did some research to find out how some of it was made, then made a huge mural depicting how she could display jewelry in a department store. As with anything of this nature, some of the children felt a few of the reports were a little hard to sit through, but most of them did extremely well and seemed to enjoy themselves in the process.

None of the students chose an occupation involving assembly line work. The writer felt this concept was extremely important to get across. Most assembly line work pays well, but as with any job, it does have its drawbacks. Due to the limitations of time, it seemed advisable not to get into any long, drawn out project. The cookie decorating idea seemed a logical plan to use. The class was very enthusiastic over the idea, listened attentively to the directions and did pretty well for a group of amateurs. There was no playing around during the project. Everyone really worked at their job. The fact the class thought they were decorating them for someone else may have promoted part of this attitude. All of them enjoyed the work, but most of them admitted they would hate to sit and do that all day long for a livelihood. We took the time right then to talk about assembly line work, why people do it even though it is tiring and sometimes boring. We also talked of the advantage of assembly line work with respect to the consumer--how things are so much cheaper because of assembly lines and why. Discussion also centered around the individual--how some individual's don't mind doing the same work over and over while others could not survive in that kind of environment.

Only one field trip was planned and the writer hoped to find a plant

where an assembly line could be witnessed first hand. However, the closest one seemed to be in Kansas City at an automobile plant. Since the school district does not encourage field trips, we were unable to go there. So the class visited the Frito-Lay plant which had a production line in hopes they could see the similarity. They did see some women at a station sorting potato chips and some men and women sticking prices on the finished product and realized in both instances that this was there job all day long. Like the cookie project, they thought it would be fun for a while, but thought they wouldn't like to do it all day long. It was quite a large plant and the class seemed amazed at all the activity that took place in order to get potato chips and other snacks on the grocer's shelves.

The main source of data used for this study was teacher observation. The favorable comments about the unit as we moved from one type of activity to another plus the eagerness they displayed on their projects led the writer to believe the study was a success. The first evaluation instrument (Appendix C) showed nineteen students in the ninetieth percentile, two in the eightieth, two in the seventieth, one in the sixtieth and one in the thirtieth. While the writer was pleased with the results, it did not have the impact of the second instrument (Appendix C). On this instrument there were no "right" or "wrong" answers. The students were to answer the way they felt about the question. All but one really enjoyed the unit and 23 out of the 25 could begin to see the relationship between school and work. This goes back to what has been said all along in this study--curriculums must be made useful and interesting for today's children.

The last day of the unit, the students were asked to write a paragraph expressing whatever feelings they had about the previous nine weeks. One boy summed it up better than most with the following statement:

My opinion of these last nine weeks of school have been a success. I think it shows us a part of life. I don't think we'll ever be what we were interested in, but it gave us an idea. It is the best Social Studies assignment I ever had and interesting. I think it was good for us to make a report or whatever we did and present it to the class. The last nine weeks were a success.

This study was an isolated attempt at career education. To be really successful, it must be introduced in kindergarten and built upon each year through senior high school. Just as you build a house from the basement up, so must you build on career education the same way.

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